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Supreme Court, U.S.
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In The
Supreme Court of the United States

PRINCO CORPORATION AND
PRINCO AMERICA CORPORATION,
Petitioners,

v.

INTERNATIONAL TRADE COMMISSION
AND U.S. PHILIPS CORPORATION,
Respondents.

On Petition For Writ Of Certiorari
To The United States Court Of Appeals
For The Federal Circuit

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

[Sealed Portions Of Appendix Omitted Here]

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APPENDIX A

United States Court of Appeals
for the Federal Circuit

PRINCO CORPORATION AND **PRINCO AMERICA CORPORATION,**

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,
AND

U.S. PHILIPS CORPORATION,

Intervenor.

2007-1386

On appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

Decided: August 30, 2010

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CHARLES A. WEISS, New York Intellectual Property Law Association, of New York, New York, for amicus curiae New York Intellectual Property Law Association on rehearing en banc. With him on

the brief were MARK J. ABATE and DAVID F. RYAN.

HERBERT C. WAMSLEY, Intellectual Property Owners, of Washington, DC, for amicus curiae Intellectual Property Owners Association on en banc rehearing. On the brief were STEVEN W. MILLER and RICHARD F. PHILLIPS. Of counsel on the brief were ROBERT P. TAYLOR, Mintz, Levin, Cohen, Ferris, Glovsky and Pepo, P.C., of Palo Alto, California; and HENRY C. Su, Howrey LLP, of Palo Alto, California.

RICHARD M. BRUNELL, American Antitrust Institute, of Washington, DC, for amicus curiae American Antitrust Institute on rehearing en banc. With him on the brief was JONATHAN L. RUBIN.

DAVID L. SIERADZKI, Attorney, Office of General Counsel, Federal Trade Commission, of Washington, DC, for amicus curiae Federal Trade Commission on rehearing en banc. With him on the brief were WILLARD K. TOM, General Counsel, and JOHN F. DALY, Deputy General Counsel for Litigation.

Before RADER, Chief Judge,* NEWMAN, MAYER, LOURIE, BRYSON, GAJARSA, LINN,

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* Randall R. Rader assumed the position of Chief Judge on June 1, 2010. Judge Mayer took senior status on June 30, 2010. Judge Michel, who retired on May 31, 2010, did not participate in this decision.

DYK, PROST, and MOORE, Circuit Judges.

Opinion for the court filed by Circuit Judge BRYSON, in which Chief Judge RADER DER and Circuit Judges NEWMAN, LOURIE, LINN, and MOORE join.

Concurring opinion filed by Circuit Judge PROST, in which Circuit Judge MAYER joins.

Dissenting opinion filed by Circuit Judge DYK, in which Circuit Judge GAJARSA joins.

BRYSON, Circuit Judge.

This case requires us to consider the scope of the doctrine of patent misuse. Patent misuse developed as a non- statutory defense to claims of patent infringement. In the licensing context, the doctrine limits a patentee's right to impose conditions on a licensee that exceed the scope of the patent right. Because patent misuse is a judge-made doctrine that is in derogation of statutory patent rights against infringement, this court has not applied the doctrine of patent misuse expansively. In this case, we adhere to that approach, and we sustain the decision of the International Trade Commission that the doctrine of patent misuse does not bar the intervenor, U.S. Philips Corporation, from enforcing its patent rights against the appellants Princo Corporation and Princo America Corporation (collectively, "Princo").

I

A

This case has a lengthy history, which we will recite only in pertinent part. The technology at issue concerns two types of digital storage devices—recordable compact discs ("CD-Rs") and rewritable compact discs ("CD-RWs"). Those devices were developed in the 1980s and 1990s. The companies that developed the CD-R/RW technology generated technical standards to ensure that discs made by different manufacturers would be compatible and playable on machines that were designed to read the earlier generation compact discs ("CDs") and "read-only" compact discs ("CD-ROMs"). The standards that were generated for CD-Rs and CD-RWs were collected in a publication entitled "Recordable CD Standard," informally known as the "Orange Book." The CD-R/RW technology was developed principally by Philips and Sony Corporation, working in collaboration. Philips and Sony also jointly developed the Orange Book standards.

One aspect of the CD-R/RW technology—and the corresponding Orange Book standards—is at issue in this case. In the course of their work, the Sony and Philips engineers had to address the problem of how to encode position information in the disc so that a consumer's CD reader/writer could maintain proper positioning while writing data to the disc. Philips and Sony proposed different solutions to that problem. Philips's solution was to use an analog method of modulating the frequency of the "groove" on the disc so as to add location codes to the disc. One of Sony's proposed solutions was to use a digital

method to encode location codes into the disc groove. Philips's approach was later set forth in two of the patents at issue in this case, referred to as the "Raaymakers patents." Sony's approach was set forth in one of its own patents, referred to as the "Lagadec patent."

After reviewing the competing solutions, the Sony and Philips engineers agreed that they would use the Raaymakers approach to solving the problem, not the Lagadec approach. The engineers from both companies agreed that the Raaymakers approach "was simple and . . . worked very well." By contrast, as the Commission found in the course of this litigation, the Lagadec approach was "prone to error" and would have been "very difficult" to implement. Philips and Sony therefore incorporated the Raaymakers approach in the Orange Book as the standard for manufacturing CD-R/RW discs.

Philips and Sony sought to commercialize their technology by offering licenses to the patents that were required to manufacture CD-R/RW discs in accordance with

the Orange Book standards. Administering the licensing program, Philips offered several different "package" licenses to the Philips and Sony patents (and those of several other patent holders). Philips included in the patent packages those patents that it regarded as potentially necessary to make Orange-Book-compliant CD-R or CD-RW discs, including the Raaymakers and Lagadec patents. The package licenses contained a "field of use" restriction, limiting the licensees to using the licensed patents to produce discs according to the Orange Book standards. After

2001, Philips offered additional package options, grouping the patents into two categories, denominated "essential" and "nonessential," for producing compact discs that complied with the technology standards set forth in the Orange Book.

In the late 1990s, Princo sought to manufacture discs and import them into this country, and it entered into a package license agreement with Philips. Soon after entering the agreement, however, Princo stopped paying the licensing fees required by the agreement. Philips then filed a complaint with the International Trade Commission, alleging that Princo (along with several other parties) was violating section 337(a)(1)(B) of the Tariff Act of 1930, 19 U.S.C. § 1337(a)(1)(B), by importing CD-Rs and CD-RWs that infringed Philips's patents.

B

In the course of proceedings before an administrative law judge, Princo raised the affirmative defense of patent misuse. Among other arguments, Princo contended that Philips had improperly forced Princo and other licensees, as a condition of licensing patents that were necessary to manufacture CD-Rs or CD-RWs, to take licenses to other patents that were not necessary to manufacture those products.

The administrative law judge agreed with Philips that Princo had infringed various claims of the six asserted Philips patents and that the patents were not invalid. However, the administrative law judge denied relief to Philips on the ground that the Philips patents were unenforceable because of patent

misuse. The administrative law judge found, inter alia, that the package licensing agreements offered by Philips constituted impermissible tying arrangements because they forced manufacturers to license extraneous patents in addition to the patents that the manufacturers wanted to license. That tying arrangement, according to the administrative law judge, rendered all of Philips's patents in suit unenforceable. The administrative law judge also held Philips's patents unenforceable based on price fixing, price discrimination, and restraint of trade.

On Philips's petition for review, the Commission affirmed the administrative law judge's ruling that Philips's package licensing practice constituted patent misuse for unlawfully tying patents that were essential for the Orange Book standard to licenses for other patents that were not essential. That practice was improper, according to the Commission, because it forced licensees to purchase licenses to patents that they did not want or need, and it did not allow them the option of licensing individual patents. The Commission did not address the administrative judge's ruling that the patent pooling arrangements between Philips and its co-licensors, including Sony, constituted price fixing and price discrimination, or the administrative judge's ruling that the royalty structure of the patent pools resulted in an unreasonable restraint of trade.

Philips appealed to this court, and we reversed. U.S. Philips Corp. v. Int'l Trade Comm'n (Philips 1), 424 F.3d 1179 (Fed. Cir. 2005). We rejected the Commission's theory that Philips's package licensing practice constituted patent misuse by improperly

tying nonessential patents to essential ones. We explained that Philips gave its licensees the option of using any of the patents in the package at the licensee's option, and that Philips charged a uniform fee to permit the manufacture of discs covered by the patented technology regardless of which patents the licensee used in its manufacturing process. Philips did not require the licensee to use any particular technology in any of the patents, including the patents that Princo complained were "nonessential." In effect, we concluded, Philips was simply charging a fixed licensing fee for licensees to manufacture discs under the Orange Book standard. We noted that including additional patents in the package was the functional equivalent of promising notto sue licensees on any of the patents in the group, which had the advantages of minimizing transaction costs and ensuring against the risk of post-agreement disputes as to whether those additional patents were required to practice the patented technology.

We also reversed the Commission's ruling that Philips had engaged in patent misuse under the rule of reason. As to that issue, we held that the Commission's conclusion that Philips's patent package licensing program was anticompetitive was predicated on legal errors and on factual findings that were not supported by substantial evidence. We remanded the case to the Commission for further proceedings because the Commission had not addressed all the grounds on which the administrative law judge had based his ruling.

C

On remand, the Commission rejected Princo's remaining theories of patent misuse. The Commission first rejected Princo's argument that Philips committed patent misuse by combining with its horizontal competitors to fix the price of patent licenses in the relevant market, i.e., the market for licensing CD-R/RW patents. The Commission found that there was no evidence in the record that the patents in the joint package licenses covered technologies that were close substitutes, or that the pool licensors would have competed in the technology licensing market absent the pooling arrangements. Consequently, the Commission found that the joint package licenses had not been shown to constitute horizontal price fixing.

In particular, the Commission rejected Princo's argument that Sony's Lagadec patent should not have been included in the patent packages. The Commission noted Philips's contention that claim 6 of the Lagadec patent covered a portion of the Orange Book standard and therefore was technically a "blocking patent." The Commission explained that if Philips was correct that Lagadec was a necessary part of the Orange Book patent package, then "no misuse flows from including the [Lagadec] patent in the joint licenses." Even if a license to the Lagadec patent was not necessary to manufacture Orange-Bookcompliant discs, the Commission stated, there was no merit to Princo's theories of patent misuse based on the Lagadec patent, because "there has been no showing that the Lagadec . . . patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the

pooling arrangement, and no showing of the anticompetitive effect required under a rule of reason analysis."

After an extensive analysis of the evidence presented to the administrative law judge, the Commission concluded that the record "does not support a finding that the Lagadec '565 patent competes with the [Raaymakers] patents," and that Princo "failed to identify evidence demonstrating that, absent the pooling arrangements, the pool licensors would have competed in the technology licensing market." The Commission noted that the administrative law judge had found that testimony at the hearing indicated that the Lagadec patent "constitutes completely different technology that does not work well according to the Orange Book standards" and that Lagadec was therefore "extraneous to the Orange Book." In particular, the administrative law judge had found that Lagadec constituted "at best, a substitute technology" that could not be used to manufacture Orange-Bookcompliant discs, and "at worst, an extraneous, nonworking add-on to the patent pool." Under those circumstances, the Commission explained, licensees who wished to make Orange-Book-compliant discs were, at most, required to accept something they did not want and would not otherwise have sought to obtain from other sellers.

With respect to the contention that including the Lagadec patent in the license packages enabled Philips to secure Sony's adherence to the Orange Book standards and thereby foreclose competition, the Commission found that theory speculative and

unsupported by the evidence in the record. Because there was no evidence that Sony would have entered the CD-R/RW market with a system based on the Lagadec technology and no evidence that such a system would have become a significant competitive force in that market, the Commission held that theory insufficient to support a finding of patent misuse.

On Princo's appeal, a divided panel of this court ruled against the Commission and Philips. Princo Corp. v. Int'l Trade Comm'n, 563 F.3d 1301 (Fed. Cir. 2009). Although the panel rejected several of Princo's arguments, it vacated the Commission's remedial orders and remanded the case for further proceedings on one issue.

At the outset, the panel unanimously rejected Princo's argument that Philips had engaged in patent misuse through improper "tying" by including the Lagadec patent in the Orange Book license packages. The court noted that while grouping patents together in package licenses has anticompetitive potential, it "also has potential to create substantial procompetitive efficiencies" such as clearing possible blocking patents, integrating complementary technology, and avoiding litigation. 563 F.3d at 1308. The court explained that the inclusion in a package license of the patents that are necessary to enable the practice of the particular technology "is not tying of the type that patent misuse doctrine seeks to prevent." Id. Because the court concluded that it would have been reasonable for a manufacturer to believe that a license under the Lagadec patent was necessary to practice the

Orange Book technology, and because "one of the major potential efficiencies of package licensing in the context of innovative technology is the avoidance of 'uncertainty that could only be resolved through expensive litigation,'" the court ruled that the "inclusion of the Lagadec patent in the patent pool did not give rise to an illegal tying arrangement." Id. at 1310-11.

The panel also unanimously rejected Princo's argument that Philips had violated the principle of Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 135 (1969), that "conditioning the grant of a patent license upon payment of royalties on products which do not use the teaching of the patent [is] misuse." Because, at the time the package licenses were executed, "it appeared that Lagadec reasonably might be necessary to manufacture Orange Book compact discs," the panel concluded that "it cannot fairly be said on these facts that a royalty is paid on products which do not use the teaching of the Lagadec patent." Princo, 563 F.3d at 1312-13.

On one issue, however, the panel majority ruled against Philips. The panel noted that Philips I did not consider whether Philips and Sony agreed to suppress the Lagadec technology and "whether an agreement that would prevent the development of alternatives [to the licensed technology] would constitute misuse under a theory of elimination of competition or price fixing." 563 F.3d at 1314. The panel then stated that, in contrast to package licenses, "there are no benefits to be obtained from an agreement between patent holders to forego

separate licensing of competing technologies," and that such agreements are "not within the rights granted to a patent holder" and can constitute an antitrust violation. Id. at 1315-16. The panel recognized that "the burden of proving misuse, and the corresponding risk of having made an insufficient record, lies with Princo." Id. at 1321. Nonetheless, the panel directed the Commission to reexamine the record to determine whether "Philips and Sony agreed not to license Lagadec in a way that would allow a competitor 'to develop, use or license the [Lagadec] technology to create a competing product,'" i.e., a product that would compete with the technology of the Raaymakers patents, id. at 1313, and whether, if there was such an agreement, the suppressed technology "could not have been viable," which would "negate a charge of misuse," id. at 1318-19.

The dissenting judge would have affirmed the Commission. With respect to the suggestion that Sony and Philips had suppressed Lagadec as a platform for manufacturing discs that would compete with Orange-Bookcompliant discs, the dissenting judge would have rejected that theory of patent misuse as a factual matter based on the Commission's findings that the Lagadec technology did not work well and would not have competed with the Orange Book technology.

Philips, Princo, and the Commission all filed petitions for rehearing en banc. The court granted the petitions filed by Philips and the Commission, but denied the petition filed by Princo. Although Philips and the Commission have raised a number of

issues in their petitions and in their briefs on rehearing en banc, we address only one—Philips's argument that regardless of whether Philips and Sony agreed to suppress the technology embodied in Sony's Lagadec patent, such an agreement would not constitute patent misuse and would not be a defense to Philips's claim of infringement against Princo. For the reasons set forth below, we conclude that the conduct alleged in this case is not the type of conduct that could give rise to the defense of patent misuse and we therefore affirm the Commission's orders granting relief against Princo.[1]

II

A

The doctrine of patent misuse has its origins in a series of Supreme Court cases, beginning with the 1917 decision in Motion Picture Patents Co. v. Universal Film Manufacturing Corp., 243 U.S. 502 (1917). In that case, which involved a patent on a motion picture projector, the Court addressed whether a patentee could require that the projector be used only with certain films, by "prescrib[ing] by notice attached to a patented machine the conditions of its use and the supplies which must be used in the operation of it, under pain of infringement of the patent." Id. at 509. The Court concluded that such a restriction imposed on the purchasers of the patented projectors was invalid because

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[1] The en bane court has not addressed Princo's arguments that the panel rejected. Accordingly, those portions of the panel's opinion are reinstated.

> a film is obviously not any part of the invention of the patent in suit; because it is an attempt, without statutory warrant, to continue the patent monopoly in this particular character of film after it has expired, and because to enforce it would be to create a monopoly in the manufacture and use of moving picture films, wholly outside of the patent in suit and of the patent law as we have interpreted it.

Id. at 518. Since the Court regarded the requirement to use particular films as beyond the legitimate scope of the patent, it held that the patent could not be enforced against a purchaser who used the patented projector with unsanctioned films.

Fourteen years later, in Carbice Corp. of America v. American Patents Development Corp., 283 U.S. 27 (1931), the Court held that it was improper for the owner of a patent on "refrigerating transportation packages" for transporting and storing dry ice to insist that licensees of that patent purchase their dry ice from the patent owner or its affiliates. The Court stated that the patentee "may not exact as the condition of a license that unpatented materials used in connection with the invention shall be purchased only from the licensor." 283 U.S. at 31. The seller of dry ice, the Court stated, "has no right to be free from competition in the sale of solid carbon dioxide. Control over the supply of such unpatented material is beyond the scope of the patentee's monopoly." Id. at 33. Accordingly, the Court ruled that the party that had supplied dry ice to one of the patentee's

licensees could not be held liable for contributory infringement of the patent.

In a third case, Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1942), the patentee owned a patent on a machine used to add salt to canned foods. The patented machines were leased to canners on the condition that the canners would use salt tablets purchased from the patentee. When one of the patentee's lessees used the machine with its own salt tablets, the patentee sued for infringement. The Supreme Court held that the patent was unenforceable on the ground that the patentee had unlawfully used the patent "to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant." Id. at 492.

In those cases, and several others in the same line of authority, the Supreme Court established the basic rule of patent misuse: that the patentee may exploit his patent but may not "use it to acquire a monopoly not embraced in the patent." Transparent-Wrap Mach. Corp. u. Stokes & Smith Co., 329 U.S. 637, 643 (1947). As for the most common form of patent misuse—requiring the purchase of an unpatented product as a condition for obtaining a license to the patent, the Court observed, "He who uses his patent to obtain protection from competition in the sale of unpatented materials extends by contract his patent monopoly to articles as respects which the law sanctions neither monopolies nor restraints of trade." Id. at 644.

The Court applied the same reasoning to licenses requiring the payment of licensing fees after the

expiration of the licensed patent and thus having the effect of extending the life of the patent beyond the statutory period. In Brulotte v. Thys Co., 379 U.S. 29 (1964), the Court explained that a patent "empowers the owner to exact royalties as high as he can negotiate with the leverage of that monopoly. But to use that leverage to project those royalty payments beyond the life of the patent is analogous to an effort to enlarge the monopoly of the patent by tieing the sale or use of the patented article to the purchase or use of unpatented ones." Id. at 33.

As applied to patent licensing agreements, the Supreme Court put the matter succinctly in Zenith, 395 U.S. at 136:

> [T]here are established limits which the patentee must not exceed in employing the leverage of his patent to control or limit the operations of the licensee. Among other restrictions upon him, he may not condition the right to use his patent on the licensee's agreement to purchase, use, or sell, or not to purchase, use, or sell, another article of commerce not within the scope of his patent monopoly.

In our cases applying the Supreme Court's patent misuse decisions, we have characterized patent misuse as the patentee's act of "impermissibly broaden[ing] the 'physical or temporal scope' of the patent grant with anticompetitive effect." Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986). When the patentee has used restrictive conditions on licenses or sales to broaden

the scope of the patent grant, we have held that an accused infringer may invoke the doctrine of patent misuse to defeat the patentee's claim. See Monsanto Co. v. McFarling, 363 F.3d 1336, 1341 (Fed. Cir. 2004); Va. Panel Corp. v. MAC Panel Co., 133 F.3d 860, 870 (Fed. Cir. 1997); Senza-Gel Corp. v. Seiffhart, 803 F.2d 661 (Fed. Cir. 1986).

In B. Braun Medical, Inc. v. Abbott Laboratories, 124 F.3d 1419 (Fed. Cir. 1997), and Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700 (Fed. Cir. 1992), we explained the rationale underlying the doctrine. As a general matter, the unconditional sale of a patented device exhausts the patentee's right to control the purchaser's use of the device thereafter, on the theory that the patentee has bargained for, and received, the full value of the goods. That "exhaustion" doctrine does not apply, however, to a conditional sale or license, where it is more reasonable to infer that a negotiated price reflects only the value of the "use" rights conferred by the patentee. Thus, express conditions accompanying the sale or license of a patented product, such as field of use limitations, are generally upheld. See Gen. Talking Pictures Corp. v. W. Elec. Co., 304 U.S. 175, 181 (1938) ("Patent owners may grant licenses extending to all uses or limited to use in a defined field."). When those contractual conditions violate public policy, however, as in the case of price- fixing conditions and tying restraints, the underlying patents become unenforceable, and the patentee loses its right to sue for infringement or breach of contract. B. Braun, 124 F.3d at 1426; Mallinckrodt, 976 F.2d at 706.

The doctrine of patent misuse is thus grounded in the policy-based desire to "prevent a patentee from using the patent to obtain market benefit beyond that which inheres in the statutory patent right." Mallinckrodt, 976 F.2d at 704. It follows that the key inquiry under the patent misuse doctrine is whether, by imposing the condition in question, the patentee has impermissibly broadened the physical or temporal scope of the patent grant and has done so in a manner that has anticompetitive effects. B. Braun., 124 F.3d at 1426. Where the patentee has not leveraged its patent beyond the scope of rights granted by the Patent Act, misuse has not been found. See Monsanto, 363 F.3d at 1341 ("In the cases in which the restriction is reasonably within the patent grant, the patent misuse defense can never succeed."); Virginia Panel, 133 F.3d at 869 (particular practices by the patentee "did not constitute patent misuse because they did not broaden the scope of its patent, either in terms of covered subject matter or temporally").

In determining whether a particular licensing condition has the effect of impermissibly broadening the patent grant, courts have noted that the patentee begins with substantial rights under the patent grant—"includ[ing] the right to suppress the invention while continuing to prevent all others from using it, to license others, or to refuse to license, . . . to charge such royalty as the leverage of the patent monopoly permits," and to limit the scope of the license to a particular "field of use." United States v. Studiengesellschaft Kohle, m.b.I I., 670 F.2d 1122, 1127, 1133 (D.C. Cir. 1981). Given that the patent grant entitles the patentee to impose a broad range

of conditions in licensing the right to practice the patent, the doctrine of patent misuse "has largely been confined to a handful of specific practices by which the patentee seemed to be trying to 'extend' his patent grant beyond its statutory limits." USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 510 (7th Cir. 1982).

Recognizing the narrow scope of the doctrine, we have emphasized that the defense of patent misuse is not available to a presumptive infringer simply because a patentee engages in some kind of wrongful commercial conduct, even conduct that may have anticompetitive effects. See C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1373 (Fed. Cir. 1998) ("Although the defense of patent misuse . . . evolved to protect against 'wrongful' use of patents, the catalog of practices labelled 'patent misuse' does not include a general notion of 'wrongful' use."). Other courts have expressed the same view. See Kolene Corp. v. Motor City Metal Treating, Inc., 440 F.2d 77, 84-85 (6th Cir. 1971) (There is no such thing as "misuse in the air. The misuse must be of the patent in suit. An antitrust offense does not necessarily amount to misuse merely because it involves patented products or products which are the subject of a patented process." (citations omitted)); McCullough Tool Co. v. Well Surveys, Inc., 395 F.2d 230, 238-39 (10th Cir. 1968) (the defense of patent misuse has been allowed "only where there had been a misuse of the patent in suit"). While proof of an antitrust violation shows that the patentee has committed wrongful conduct having anticompetitive effects, that does not establish misuse of the patent in suit unless the conduct in question restricts the

use of that patent and does so in one of the specific ways that have been held to be outside the otherwise broad scope of the patent grant.[2]

Although patent misuse has been mainly a judicially created defense, Congress has not been entirely silent about the doctrine. However, instead of saying what patent misuse is, Congress has said what it is not. Thus, section 271(d) of the Patent Act sets forth five types of conduct that may not provide the basis for finding "misuse or illegal extension of the patent right." The last two of the five, which were added in 1988, are

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[2] Some courts and commentators have questioned the continuing need for the doctrine of patent misuse, which had its origins before the development of modern antitrust doctrine. See USM Corp., 694 F.2d at 511 ("Since the antitrust laws as currently interpreted reach every practice that could impair competition substantially, it is not easy to define a separate role for a doctrine also designed to prevent an anticompetitive practice—the abuse of a patent monopoly."); Mark A. Lemley, The Economic Irrationality of the Patent Misuse Doctrine, 78 Cal. L. Rev. 1599, 1614-20 (1990). The Supreme Court's patent misuse cases have not been overruled, however, and we therefore apply the principles of patent misuse as that Court's decisions and our own prior precedents direct. Senza-Gel, 803 F.2d at 665 n.5.

> (4) refus[ing] to license or use any rights to the patent; or (5) condition[ing] the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

35 U.S.C. § 271(d).

Importantly, Congress enacted section 271(d) not to broaden the doctrine of patent misuse, but to cabin it. See Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 201 (1980) (addressing the role of section 271(d) in narrowing the scope of patent misuse). The 1988 amendment in particular was designed to confine patent misuse, with respect to certain licensing practices, to conduct having anticompetitive effects. See Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 41 (2006); S. Rep. No. 100-492, at 9 (1988) (explaining that purpose of the amendment was to narrow the patent misuse doctrine, which "punish[es] innovators engaged in procompetitive distribution and licensing practices"); id. at 14 ("The lack of clarity and predictability in application of the patent misuse doctrine and that doctrine's potential for impeding procompetitive arrangements are major causes for concern."); 134 Cong. Rec. 32,471 (1988) (statement of Sen. Patrick Leahy) ("Reform of patent misuse will ensure that the harsh misuse sanction of unenforceability is

imposed only against those engaging in truly anticompetitive conduct."); id. at 32,295 (statement of Rep. Robert Kastenmeier) ("[T]he proposed modifications should have a pro- competitive effect, insofar as they require some linkage between patent licensing practice and anti-competitive conduct.").[3]

The dissent argues that the 1988 amendment to section 271(d) makes it "quite clear that Congress intended that the patent misuse doctrine could extend to a refusal to license patented technologies by parties acting in concert." That, however, is not how we interpret the statute or its legislative history. The statute itself contains no mention of concerted action. In the legislative history, Representative Kastenmeier described various licensing provisions that had been held to constitute patent misuse, including price fixing, covenants not to compete, resale price maintenance, and grantback licenses. 134 Cong. Rec. 32,295 (1988). The dissent points to the inclusion of "covenants not to compete" in Representative Kastenmeier's list, and interprets that statement as an endorsement of the proposition

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[3] The dissent refers on several occasions to the Supreme Court's statement in Independent Ink that it "would be absurd to assume that Congress intended to provide that the use of a patent that merited punishment as a felony would not constitute 'misuse.'" 547 U.S. at 42. In that statement, however, the Court was simply making the point that Congress's decision to require proof of market power to establish patent misuse was powerful evidence that Congress intended proof of market power to be similarly required to establish a criminal antitrust violation for the same conduct. The Court was not suggesting that every antitrust violation committed by a patentee constitutes patent misuse.

that a concerted refusal to license a patent constitutes patent misuse. But Representative Kastenmeier described the listed practices as "patent licensing arrangements." Id. Moreover, his catalog of unlawful practices corresponded to the list of proscribed practices set forth in the House bill, the "Patent Licensing Reform Act of 1988," to which he alluded in his remarks. Id. at 32,294. Each of the prohibited practices listed in that bill was a condition on granting licenses, including the imposition of "covenants not to compete." 134 Cong. Rec. 3261 (1988) (statement of Rep. Robert Kastenmeier); H.R. 4086, 100th Cong. (1988) ("unreasonably imposing as a condition of granting a license for a patent that the licensee may not produce or sell competing goods."). From the context, it is clear that Representative Kastenmeier's reference to "covenants not to compete" on which the dissent relies was an allusion to non-compete clauses in patent licenses, not to concerted refusals to license among horizontal competitors. Nor is there anything else in the legislative history that supports the dissent's interpretation of Congress's intent.

Section 271(d) is not directly implicated in this case because the conduct here at issue does not fall within any of the five statutorily defined categories. Nonetheless, the statute is pertinent because, as both the text and the legislative history of the 1988 amendment to section 271(d) make clear, Congress was concerned about the open-ended scope of the doctrine and sought to confine it to anticompetitive conduct by patentees who leverage their patents to obtain economic advantages outside the legitimate scope of the patent grant.

B

This case presents a completely different scenario from the cases previously identified by the Supreme Court and by this court as implicating the doctrine of patent misuse. Philips is not imposing restrictive conditions on the use of the Raaymakers patents to enlarge the physical or temporal scope of those patents. Instead, the alleged act of patent misuse that the panel focused on was the claimed horizontal agreement between Philips and Sony to restrict the availability of the Lagadec patent—an entirely different patent that was never asserted in the infringement action against Princo. Even if such an agreement were shown to exist, and even if it were shown to have anticompetitive effects, a horizontal agreement restricting the availability of Sony's Lagadec patent would not constitute misuse of Philips's Raaymakers patents or any of Philips's other patents in suit.

Reduced to its simplest elements, the question in this case comes down to this: When a patentee offers to license a patent, does the patentee misuse that patent by inducing a third party not to license its separate, competitive technology? Princo has not pointed to any authority suggesting that such a scenario constitutes patent misuse, and nothing in the policy underlying the judge-made doctrine of patent misuse would support such a result.[4]

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[4] Princo relies on a single case with unusual facts, Compton v. Metal Products, Inc., 453 F.2d 38 (4th Cir. 1971), as support for its expansive patent misuse theory. In that case, the

Such an agreement would not have the effect of increasing the physical or temporal scope of the patent in suit, and it therefore would not fall within the rationale of the patent misuse doctrine as explicated by the Supreme Court and this court.

What patent misuse is about, in short, is "patent leverage," i.e., the use of the patent power to impose overbroad conditions on the use of the patent in suit that are "not within the reach of the monopoly granted by the Government." Zenith, 395 U.S. at 136-38. What that requires, at minimum, is that the patent in suit must "itself significantly contributefl to the practice under attack." Kolene Corp., 440 F.2d at 85. Patent misuse will not be found when there is "no connection" between the patent right and the misconduct in question, see Republic Molding Corp. v. B. W. Photo Utils., 319 F.2d 347, 351 (9th Cir. 1963), or no "use" of the patent, see Virginia Panel, 133 F.3d at 870. In this case, there is no such link between the putative misconduct and the Raaymakers patents.

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patentee agreed, as part of a patent licensing agreement, not to compete with the licensee for a period of 20 years. The court held that the non-compete agreement violated "the common law prohibition against agreements in restraint of trade as well as Section 1 of the Sherman Act," and it further held that the agreement constituted patent misuse that rendered the underlying patents unenforceable against any third-party infringers. *Id.* at 44. That case is distinguishable on its facts, but to the extent the court in that case held the patents unenforceable based on the patentee's agreement to limit his own freedom of action, we find the court's conclusion that there was patent misuse to be unsupported by precedent or reasoning.

Princo makes several arguments in its effort to bring this case within the scope of the traditional patent misuse doctrine. First, Princo contends that Philips "leveraged" its patents, as that term has been used in patent misuse cases, because it used the proceeds of its highly successful licensing program to fund royalty payments to Sony and because those payments gave Sony the incentive to enter into the alleged agreement to suppress the Lagadec patent. However, the use of funds from a lawful licensing program to support other, anticompetitive behavior is not the kind of "leveraging" that the Supreme Court and this court have referred to in discussing the leveraging of a patent that constitutes patent misuse. See C.R. Bard, 157 F.3d at 1373 ("Although the law should not condone wrongful commercial activity, the body of misuse law and precedent need not be enlarged into an open-ended pitfall for patent-supported commerce."). Even if such use of funds were to be deemed misconduct, it does not place any conditions on the availability of Philips's patents to any potential licensees, so it is not the power of Philips's patent right that is being misused.

Princo also argues that the Supreme Court has not required conventional "leveraging" of a patent in order to establish patent misuse. For that proposition, however, Princo relies on antitrust cases in which the Court stated that a patentee is not immunized against an antitrust violation by the privilege of a patent; those cases did not involve patent misuse or the enforceability of the defendants' patents. See United States v. U.S. Gypsum Co., 333 U.S. 364, 396-400 (1948) (finding unlawful price fixing and control of distribution of gypsum board);

Standard Oil Co. (Ind.) v. United States, 283 U.S. 163, 174 (1931) ("[T]he limited monopolies granted to patent owners do not exempt them from the prohibitions of the Sherman Act."). That is a different issue altogether from the issue before us, which is whether an infringing party can obtain immunity against a valid charge of patent infringement by showing an unrelated antitrust violation. Although the Lagadec patent and the Raaymakers patents were all included together in the Orange Book package licenses offered by Philips, those package licenses are independent of the antitrust violation that is now being alleged, i.e., a separate agreement between Philips and Sony to suppress the availability of the Lagadec technology.

In theory, the reason an agreement with Sony has value to Philips is because suppressing potential competition with the Raaymakers technology makes the Philips licenses more valuable. But that value does not derive from the fact that Sony is a co-licensor with Philips or the fact that the Lagadec patent is included in the package licenses. If the Lagadec patent were owned by an independent third party and not included in the Philips-Sony package licenses at all, an agreement between Philips and the third party to suppress the Lagadec technology would have exactly the same economic impact on Philips and Princo as the hypothesized agreement with Sony. That agreement might be vulnerable to challenge under the antitrust laws, but it could not reasonably be characterized as misuse of the Raaymakers patents. Thus, it does not follow from the possible existence of an antitrust violation with respect to Sony's Lagadec patent that Philips is

guilty of patent misuse with respect to the Raaymakers patents.

The dissent does not find fault with the terms of the licensing agreements between Philips and its licensees, but instead focuses its full attention on the purported horizontal agreement between Philips and Sony to suppress the Lagadec technology. The dissent then characterizes that agreement as invoking the doctrine of patent misuse because it is "part and parcel" of the licensing agreements between Philips and its licensees. That characterization, however, is incorrect. The Orange Book licensing agreements control what the licensees may do; the purported agreement between Philips and Sony controls what Sony may do. At bottom, Princo's complaint is not that its license to the Raaymakers patents is unreasonably conditioned, but that the Lagadec patent has not been made available for non-Orange-Book uses. And that is not patent misuse under any court's definition of the term.

The purported agreement between Philips and Sony has none of the features that courts have characterized as constituting patent misuse. In particular, it does not leverage the power of a patent to exact concessions from a licensee that are not fairly within the ambit of the patent right. Although the dissent contends that using the leverage of a patent against licensees is not a necessary component of patent misuse, every one of the "patent misuse" cases cited by the dissent for that proposition have that very fact pattern (except for the Compton case, discussed above, in which the

patentee agreed to place restrictions on his own right to compete). If the purported agreement between Philips and Sony not to license the Lagadec technology is unlawful, that can only be under antitrust law, not patent misuse law; nothing about that agreement, if it exists, constitutes an exploitation of the Raaymakers patents against Philips's licensees.[5]

The Morton Salt case, which the dissent cites in support of its broad characterization of the doctrine of patent misuse, is a typical "tying" case in which the patentee leveraged its patent to a machine by insisting that its licensees purchase unpatented goods, to be used in connection with the machine, from the patentee. It was because of the unlawful condition on the patent license that the Court in Morton Salt declined to enforce the patent. Significantly, the Court explained that its ruling was based on the use of the patent "as a means of

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[5] The dissent suggests in passing that the Sony-Philips agreement also constitutes misuse of the Lagadec patent. How a patent that is not enforced can be misused is not explained, nor is it clear why misuse of the Lagadec patent should be a defense against infringement of different patents. The dissent cites language from a Second Circuit case, SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1204 (2d Cir. 1981), which stated that "a concerted refusal to license patents" is unlawful and that "in such cases the patent holder abuses his patent by attempting to enlarge his monopoly beyond the scope of the patent granted him." The court's point was that such conduct could violate the antitrust laws; as such, we interpret the court's reference to "abus[ing] his patent" simply as a shorthand way of making that point, and not as a statement about the law of patent misuse.

restraining competition with the patentee's sale of an unpatented product," and that the successful prosecution of an infringement action "is a powerful aid to the maintenance of the attempted monopoly of the unpatented product," thus "thwarting the public policy underlying the grant of the patent." 314 U.S. at 493. There is no such exploitation of the Raaymakers patents in this case.[6]

In sum, this is not a case in which conditions have been placed in patent licenses to require licensees to agree to anticompetitive terms going beyond the scope of the patent grant. Rather, in this case the assertion of misuse arises not from the terms of the license itself but rather from an alleged collateral agreement between Sony and Philips. In that setting, the doctrine of patent misuse does not immunize Princo against the legal effect of its acts of infringement.

C

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[6] The dissenters argue that antitrust law is not adequate to protect victims of anticompetitive conduct by patentees and that the doctrine of patent misuse must be interpreted expansively to fill that gap. Antitrust law, however, provides robust remedies including both public and private enforcement. An accused infringer can raise a Sherman Act claim as a counterclaim in an infringement action or as an affirmative claim, and is eligible for treble damages and attorney's fees. As to the doctrinal limitations that apply to antitrust plaintiffs generally, such as the standing requirement, there is no reason to believe those limitations are inappropriate simply because a party is seeking relief against a patentee.

Apart from Princo's failure to show that Philips unlawfully leveraged its Raaymakers patents, a finding of patent misuse is unwarranted in this case because Princo failed to establish that the alleged agreement to suppress the Lagadec technology had anticompetitive effects. Whether viewed as a matter of patent misuse or in light of general antitrust principles, Princo's claim regarding the alleged agreement fails because Philips and Sony acted legitimately in choosing not to compete against their own joint venture. Princo also failed to show that the asserted agreement had any anticompetitive effects because, as the Commission found, the Lagadec technology was not a viable potential competitor to the technology embodied in the Raaymakers patents.

At the outset, Princo urges us to overrule the line of authority in this court holding that patent misuse requires a showing that the patentee's conduct had anticompetitive effects. We decline to do so. This court has observed that "[t]o sustain a misuse defense involving a licensing arrangement not held to have been per se anticompetitive by the Supreme Court, a factual determination must reveal that the overall effect of the license tends to restrain competition unlawfully in an appropriately defined relevant market." Windsurfing, 782 F.2d at 100102. We have consistently adhered to that requirement. See, e.g., Philips I, 424 F.3d at 1184; Monsanto, 363 F.3d at 1341; Virginia Panel, 133 F.3d at 868; B. Braun, 124 F.3d at 1426; Mallinckrodt, 976 F.2d at 708. Our position is consistent with the traditional characterization of the defense of patent misuse by the Supreme Court, see Ill. Tool Works, 547 U.S. at 38 (describing the patent misuse doctrine as

applying "when a patentee uses its patent 'as the effective means of restraining competition with its sale of an unpatented article'" (citation omitted); the decisions of other circuits, see County Materials Corp. v. Allan Block Corp., 502 F.3d 730, 736 (7th Cir. 2007); Carpet Seaming Tape Licensing Corp. v. Best Seam Inc., 616 F.2d 1133, 1142 (9th Cir. 1980); and the 1988 amendment to 35 U.S.C. § 271(d), which makes clear that Congress intended to limit patent misuse to practices having anticompetitive effects.

Turning from patent misuse law to antitrust principles, Princo contends that the hypothesized agreement between Philips and Sony not to license the Lagadec technology for non-Orange-Book purposes was a naked restraint of trade with no procompetitive justification, and that Philips's conduct in entering into that agreement should render its Orange Book patents unenforceable. For the reasons set forth below, we disagree.

Although joint ventures can be used to facilitate collusion among competitors and are therefore subject to antitrust scrutiny, see NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 113 (1984), research joint ventures such as the one between Philips and Sony can have significant procompetitive features, and it is now well settled that an agreement among joint venturers to pool their research efforts is analyzed under the rule of reason. See

Addamax Corp. v. Open Software Found., Inc., 152 F.3d 48, 52 (1st Cir. 1998) (Joint venture research enterprises, "unless they amount to complete shams, are rarely susceptible to per se

treatment. Where the venture is producing a new product . . . there is patently a potential for a productive contribution to the economy, and conduct that is strictly ancillary to this productive effort ... is evaluated under the rule of reason."); see generally Am. Needle, Inc. v. Nat'l Football League, 130 S. Ct. 2201, 2007 (2010) (rule of reason generally applied to joint venture agreements); Texaco Inc. v. Dagher, 547 U.S. 1, 56 (2006); Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 23 (1979); Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752, 768 (1984); 15 U.S.C. § 4302 (conduct of research joint ventures is "not deemed illegal per se," but is "judged on the basis of its reasonableness, taking into account all relevant factors affecting competition"); FTC & Dep't of Justice, Antitrust Guidelines for Collaborations Among Competitors § 3.31(a), at 14 (2000) (most research joint venture agreements "are procompetitive, and they typically are analyzed under the rule of reason"); ABA, Antitrust Law Developments 445-46 (6th ed. 2007) ("joint research ventures are typically analyzed under the rule of reason").

Collaboration for the purpose of developing and commercializing new technology can result in economies of scale and integrations of complementary capacities that reduce costs, facilitate innovation, eliminate duplication of effort and assets, and share risks that no individual member would be willing to undertake alone, thereby "promot[ing] rather than hinder[ing] competition." Dep't of Justice & FTC, Antitrust Guidelines for the Licensing of Intellectual Property §§ 5.1, at 24; 5.5, at 28 (Apr. 6, 1995); see also Herbert Hovenkamp,

Antitrust Law 2115a, at 110 ("[J]oint innovation often produces significant social benefits in relation to costs."); FTC & Dep't of Justice, Antitrust Guidelines for Collaborations Among Competitors § 2.1, at 6 (Apr. 2000); Thomas A. Piraino, Jr., The Antitrust Analysis of Joint Ventures After the Supreme Court's Dagher Decision, 57 Emory L.J. 735, 767-68 (2008); Joseph Kaftan, Antitrust Analysis of Technology Joint Ventures: Allocative Efficiency and the Rewards of Innovation, 61 Antitrust L.J. 937, 938 (1993).

In particular, as we explained in Philips I, research joint ventures that seek to develop industry-wide standards for new technology can have decidedly procompetitive effects. The absence of standards for new technology can easily result in a "Tower of Babel" effect that increases costs, reduces utility, and frustrates consumers. As a leading treatise has noted, cooperation by competitors in standard-setting "can provide procompetitive benefits the market would not otherwise provide, by allowing a number of different firms to produce and market competing products compatible with a single standard." Herbert Hovenkamp et al., IP & Antitrust § 35.2b (2010). Those benefits include greater product interoperability, including the promotion of price competition among interoperable products; positive network effects, including an increase in the value of products as interoperable products become more widely used; and incentives to innovate by establishing a technical baseline for further product improvements. See Patrick D. Curran, Comment, Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality, 70 U. Chi. L. Rev. 983,

98590 (2003). Congress has recognized those procompetitive features and has directed that the activities of a "standards development organization while engaged in a standards development activity" is subject to the rule of reason. See Standards Development Organization Advancement Act of 2004, Pub. L. No. 108-237 § 104, 118 Stat. 661, 663.

The "ancillary restraints" that are often important to collaborative ventures, such as agreements between the collaborators not to compete against their joint venture, are also assessed under the rule of reason. See Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 214, 223-30 (D.C. Cir. 1986) (unlike a naked horizontal restraint that does not accompany a contract integration, "an ancillary horizontal restraint, one that is part of an integration of the economic activities of the parties and appears capable of enhancing the group's efficiency, is to be judged according to its purpose and effect"); Polk Bros., Inc. u. Forest City Enters., Inc., 776 F.2d 185, 189 (7th Cir. 1985) ("A restraint is ancillary when it may contribute to the success of a cooperative venture that promises greater productivity and output."); Engine Specialties, Inc. v. Bombardier Ltd., 605 F.2d 1, 11 (1st Cir. 1979) (agreement that "neither of the parties to the joint venture will compete with it" is "not offensive in and of itself"); United States v. Addyston Pipe & Steel Co., 85 F. 271, 280 (6th Cir. 1898), aff'd, 175 U.S. 211 (1899) ("Restrictions in the articles of partnership upon the business activity of the members, with a view of securing their entire effort in the common enterprise were, of course, only ancillary to the main end of the union, and were to be encouraged.");

Hovenkamp, Antitrust Law 2115b1, at 113 (agreements between firms engaged in joint innovation not to innovate in the same area outside the context of the joint venture "are to be regarded as ancillary rather than naked restraints and are thus subject to the usual proof of power and anticompetitive effects"). Moreover, those ancillary restraints are not viewed in isolation, but in the context of the joint venture or other collaborative effort. Thus, agreements not to compete that might be suspect standing alone are regarded as reasonable when they are ancillary to "a larger endeavor whose success they promote." Polk Bros., 776 F.2d at 189.[7]

Princo does not contend that the selection of the Raaymakers technology, rather than the Lagadec technology, for the Orange Book standard was a

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[7] Princo argues that the alleged agreement between Philips and Sony was not "ancillary" to a collaborative joint venture, based on its factual contention that the Lagadec technology "was not the product of a joint venture, but rather was independently developed by Sony." The panel opinion, however, rejected that argument, noting that "Nile Lagadec and Raaymakers patents stem from the joint efforts of Philips and Sony engineers to develop recordable CDs in the late 1980s. . . . Philips and Sony ultimately chose to define the Orange Book standard using the analog Raaymakers . approach, not the digital Lagadec method." Princo, 563 F.3d at 1305-06. The panel's opinion was supported by the administrative law judge's findings, and by evidence that Sony advanced the proposal that ultimately was incorporated into the Lagadec patent as part of an extended course of collaboration with Philips during the 1980s. *See* Hearing Tr. 372409 (June 10, 2003). Nothing in Princo's en bane presentation persuades us that the panel's description of the development of the Lagadec technology was incorrect.

violation of the public policy in favor of free competition, nor did the panel so find. Instead, the panel focused on whether Sony and Philips agreed to suppress competition between the technology represented by the Orange Book standard and technology that fell outside the Orange Book standard, i.e., the Lagadec digital encoding technology. The Commission did not answer that question because the question was never squarely presented to it. Nor do we need to decide whether there was any such agreement between Sony and Philips. That is because the Commission's factual findings make it clear that even if there was such an agreement, it did not have the effect of suppressing potentially viable technology that could have competed with the Orange Book standards.

The Commission found that "there has been no showing that the Lagadec '565 patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of the anti-competitive effect required under a rule of reason analysis." The Commission supported that general finding with a series of specific findings based on the record before it.

First, the Commission noted that the evidence before the administrative law judge showed that the Lagadec technology "does not work well according to the Orange Book standards." The Commission added that the administrative law judge "credited testimony that the Lagadec approach is prone to errors and `did not provide a scheme that would

work and was reliable.' Those findings were not limited to the unsuitability of using Lagadec to produce Orange-Book-compliant discs, as Princo argues. Instead, as is clear from the testimony on which those findings were based, the findings applied more generally to the technical problems presented by the Lagadec technology. The administrative law judge referred to testimony by Philips's expert explaining that there is "a real problem" with the Lagadec digital approach and that "it is very difficult to carry out a decoding of this particular approach." The expert added that "[a]s a result, Philips and Sony dismissed the Lagadec approach because this is a very difficult problem to solve and Lagadec just did not provide a scheme that would work and was reliable. . . . [F]rom basic physics, you can just see that this is not a good solution, and it really wouldn't work well."

The Commission also noted that Princo had not pointed to any evidence "that the Lagadec approach is a commercially viable technological alternative to the technology of [the Raaymakers patents]." By way of explanation, the Commission commented that "the commercial viability of a method that is prone to errors, unreliable, and unworkable is doubtful." Based on the Commission's use of the term "commercial viability," Princo argues that the Commission used the wrong standard in evaluating the Lagadec technology. According to Princo, instead of addressing the commercial viability of that technology, the Commission should have limited its inquiry to whether Lagadec had "the technical potential to develop as a workable alternative." The Commission, however, addressed both technical

feasibility and commercial potential, and it found the Lagadec approach lacking in both respects.

Second, the Commission rejected the argument that Philips "included Sony in the [patent] pool not because Sony brought anything necessary to the CD-R/RW technology, but rather because Sony is a major player in the industry, whose cooperation Philips wanted." The Commission found that assertion to be baseless and contrary to the testimony of several witnesses that Philips "partnered with Sony for technical reasons." Thus, although Princo argues at length that the pooling arrangement was not designed as a joint technical project between Philips and Sony, but rather as a means of allowing Philips to share its royalties with Sony in exchange for Sony's agreement not to compete against the Orange Book standard, the Commission found to the contrary.

Finally, with respect to Princo's related argument that including the Lagadec patent in the package licenses enabled Philips to avoid competition from non-Orangebook discs, the Commission stated that Princo had "not identified evidence establishing that, if Sony's [Lagadec patent] were not included in the licenses, Sony likely would have developed technologies that competed against the Orange Book standard in a relevant market." The Commission added that there was no evidence in the record that Sony "would have entered and survived to become a significant competitive force" in the CD-R/RW market with the Lagadec technology or that, absent the pooling arrangements, the pool licensors would have competed with the Orange Book technology.

Likewise, there was no evidence that any potential licensee might develop the Lagadec technology to compete with the Orange Book discs. Princo did not show that any potential disc manufacturer had ever been refused a license to the Lagadec patent for purposes of producing non-Orange-Book discs, or had even sought to explore that possibility. Nor has Princo pointed to any evidence that the Lagadec patent was anything more than a theoretical solution, or that the unavailability of a separate license to Lagadec for non-Orange-Book purposes resulted in some realistic foreclosure of competition.

While the suppression of nascent threats can be construed as anticompetitive behavior under certain circumstances, see United States v. Microsoft Corp., 253 F.3d 34, 79 (D.C. Cir. 2001) (en bane), Princo had the burden of showing that the hypothesized agreement had an actual adverse effect on competition in the relevant market. See Cal. Dental Ass'n v. FTC, 526 U.S. 756, 775 n.12 (1999); In re Ciprofloxacin Hydrochloride Antitrust Litig., 544 F.3d 1323, 1332 (Fed. Cir. 2008) (noting that an antitrust plaintiff bears the initial burden of showing an actual adverse effect on competition); see also Clorox Co. v. Sterling Winthrop, Inc., 117 F.3d 50, 60 (2d Cir. 1997) (antitrust plaintiff required to produce evidence that the challenged agreement could "significantly affect competition"); U.S. Healthcare, Inc. v. Healthsource, Inc., 986 F.2d 589, 596 (1st Cir. 1993) (no rule of reason violation "[a]bsent a compelling showing of foreclosure [of competition] of substantial dimensions"); Bhan v. NME Hosps., Inc., 929 F.2d 1404, 1413 (9th Cir. 1991) (antitrust

plaintiff must show restraint is likely "to impair competition significantly"); DeLong Equip. Co. v. Wash. Mills Abrasive Co., 887 F.2d 1499, 1507 (11th Cir. 1989) (antitrust plaintiff in rule of reason case bears the burden of showing that the challenged agreement had a "significant anticompetitive effect"); Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 1507c (antitrust plaintiff must introduce evidence that defendants "have restrained trade significantly" and have "impair[ed] competition" in a relevant market).

What Princo had to demonstrate was that there was a "reasonable probability" that the Lagadec technology, if available for licensing, would have matured into a competitive force in the storage technology market. See United States v. Penn-Olin Chem. Co., 378 U.S. 158, 17576 (1964) (requiring a finding that there was a reasonable probability that the competing companies would have "entered the market" or "remained a significant potential competitor"). It was not enough that there was some speculative possibility that Lagadec could have overcome the barriers to its technical feasibility and commercial success and become the basis for competing disc technology. The Commission found that Princo failed to show that the Lagadec technology had technical or commercial prospects that could enable it to compete with the Orange Book technology. Those findings wholly undermine Princo's contention that this is a case in which the patents in suit have been used as part of an overall horizontal agreement with the effect of keeping a viable competitor out of the relevant market.

The dissenting opinion seeks to sidestep the Commission's adverse factual findings by arguing that the burden of proof should have been placed on Philips, not Princo. The dissent acknowledges that an agreement among joint venturers who would otherwise be competitors is judged by the rule of reason. Within that framework, however, the dissent advocates a "quick look" rule of reason analysis on the ground that any agreement not to compete is inherently suspect and that competitive harm therefore should be presumed.

Quick-look analysis applies to "naked restraint[s] on price and output" where a detailed market analysis is unnecessary to conclude that the arrangements in question have anticompetitive effects. Cal. Dental, 526 U.S. at 769-70. In those circumstances, only a quick look is necessary because the arrangement is "so plainly anticompetitive that courts need undertake only a cursory examination before imposing antitrust liability." Dagher, 547 U.S. at 7 n.3; see also Cal. Dental, 526 U.S. at 781 ("The object is to see whether the experience of the market has been so clear, or necessarily will be, that a confident conclusion ... will follow from a quick (or at least quicker) look, in place of a more sedulous one."). However, the Supreme Court has cautioned that presumptions of anticompetitiveness should not be lightly invoked. Broad. Music, 441 U.S. at 8-9. Rather, the Court has stated:

> [B]efore a theoretical claim of anticompetitive effects can justify shifting to a defendant the burden to show empirical evidence of procompetitive effects, as quick-look analysis in effect requires, there must be some indication that the court making the decision has properly identified the theoretical basis for the anticompetitive effects and considered whether the effects actually are anticompetitive. Where, as here, the circumstances of the restriction are somewhat complex, assumption alone will not do.

Cal. Dental, 526 U.S. at 775 n.12.

A quick-look approach might be justified if the joint venture in this case were a sham, or if the alleged agreement were a naked restraint, i.e., not reasonably necessary to achieve the efficiency-enhancing benefits of the joint venture. See Major League Baseball Props., Inc. v. Salvino, Inc., 542 F.3d 290, 338 (2d Cir. 2008) (Sotomayor, J., concurring). The Commission, however, rejected the contention that the joint venture between Philips and Sony was a sham. And, as we have discussed, an agreement among joint venturers not to compete against the joint venture is not a naked restraint, because it provides assurance that the resources invested by one joint venturer will not be undermined or competitively exploited to the sole benefit of the other. See id. at 340 (noting that exclusivity and profit-sharing provisions are

reasonably necessary to prevent the free-rider problem). Particularly when the purpose of the joint venture is to set standards for an industry, and choices must be made as to which technologies to promote and which to suppress, those choices must be supported equally by all participants to the standard-setting body in order to achieve successful creation and adoption of the standard. See generally Rambus Inc. v. Infineon Techs. AG, 318 F.3d 1081 (Fed. Cir. 2003).[8]

In sum, Princo has failed to show that the putative agreement between Sony and Philips not to license the Lagadec technology for non Orange-Book purposes had any market effect at all- actual or prospective. The record, and the findings of the Commission, make clear that the Lagadec technology lacked both the technical and the commercial prospects that would have made it a possible basis for a product that could compete with Orange-Book-compliant discs in the data storage market. For that reason, Princo failed to demonstrate that any agreement not to license Lagadec would have had the anticompetitive effects necessary to condemn that agreement under rule-of-reason analysis.

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[8] In positing that the asserted agreement between Philips and Sony was unlawful, the dissent draws a distinction between an agreement that Sony would not compete with the joint venture and an agreement that Sony would not license the Lagadec patent to compete with the joint venture. That distinction is illusory. It would make no difference whether Sony developed the alternative technology itself or whether Sony facilitated the development of that technology by licensing a third party to do so; either way, Sony would be profiting at the expense of the joint venture.

Accordingly, we conclude that even if Philips and Sony engaged in an agreement not to license the Lagadec patent for non-Orange-Book purposes, that hypothesized agreement had no bearing on the physical or temporal scope of the patents in suit, nor did it have anticompetitive effects in the relevant market. The asserted agreement between Philips and Sony therefore did not constitute patent misuse and cannot justify rendering all of Philips's Orange Book patents unenforceable.

AFFIRMED

United States Court of Appeals
for the Federal Circuit

PRINCO CORPORATION AND PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

AND

U.S. PHILIPS CORPORATION,

Intervenor.

2007-1386

On Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

PROST, Circuit Judge, with whom MAYER, Circuit Judge joins, concurring-in-part.

I agree that a finding of patent misuse is unwarranted on this record because Princo failed to

meet its burden of showing that any agreement regarding the Lagadec patent had anticompetitive effects. Princo's failure to make this threshold showing resolves this case. I therefore join Parts I and II-C of the majority's opinion.

As Part II-C explains, the Commission's factual findings on this issue are supported by substantial evidence. I part ways with the majority and dissent, however, over the other contours of the patent misuse doctrine. I doubt that the doctrine is as narrow or expansive as each respectively suggests.

This case arises at the uneasy intersection of antitrust and patent law, in essence posing the novel question of whether (and if so, to what extent) patentee competitors may enter an agreement regarding the licensing of their patents. In my view, what distinguishes this case from Motion Picture Patents, Carbice Corp., Morton Salt and their progeny is that the alleged agreement concerns patents and was entered into by the patents' respective owners. The putative agreement does not cover an unpatented product over which a patent owner is exercising control by virtue of market power or a patent licensing agreement. See Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 202 (1980) (holding that the linkage of "two protected activities" in a single transaction does not constitute patent misuse); cf. Motion Picture Patents, 243 U.S. at 515-18; Carbice Corp., 283 U.S. at 31-33; Morton Salt, 314 U.S. at 491-92. Here, Philips owned the Raaymakers patents, Sony the Lagadec patent. Philips and Sony were thus presumably free to license their patents to everyone—or no one. In

asserting that the precedent of the Supreme Court and our court compel a finding of patent misuse, the dissent does not address how a patent owner's right to exclude others from using the invention could, and possibly should, affect the calculus in the antitrust and patent misuse contexts. Indeed, at first blush there seems little difference between the agreement allegedly entered into here and Sony granting an exclusive license to Philips on the Lagadec patent, which Philips then decides not to practice.

While I find it significant that the putative agreement concerned patents rather than unpatented technology, I do not share the majority's apparent view that antitrust considerations are an entirely "different issue," separate and apart from the question of whether there has been patent misuse. See Maj. Op. at 22-23. Whether use of a patent runs afoul of antitrust law seems in itself probative of whether the patent owner has also abused, or "misused," the limited monopoly granted by Congress. See U.S. Gypsum Co. v. Nat'l Gypsum Co., 352 U.S. 457, 468, 472 (1957); Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 667 (1944); cf. Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 134-35 (1969) (asking whether there had been patent misuse in determining whether the patentee had violated antitrust law); Transparent-Wrap Mach. Corp v. Stokes & Smith Co., 329 U.S. 637, 640-41 (1947). Moreover, I do not read Supreme Court precedent as necessarily foreclosing a finding of patent misuse based at least in part on finding an antitrust violation. As the Supreme Court explained in United States v. United States Gypsum Co., 333 U.S. 364, 400 (1948), patents "grant no privilege to

their owners of organizing the use of those patents to monopolize an industry through price control." The majority's limited focus on the Raaymakers patents seems to ignore that the challenged agreement could just as easily be framed as a decision to license some patents (Raaymakers) and an affirmative refusal to license another (Lagadec). By asking only whether the Raaymakers patents has been "leveraged," see Maj. Op. at 15, the majority may have unnecessarily narrowed the patent misuse inquiry— particularly when one can readily argue that the combined effect of an agreement to license the Raaymakers patents, but not license the Lagadec patent, enabled Philips to obtain the type of "market benefit beyond that which inheres in the statutory patent right" of either patent, amounting to misuse. Mallinckrodt, 976 F.2d at 704; cf. Hartford-Empire Co. v. United States, 323 U.S. 387, 406-07 (1945).

Because we need not reach the issue, I would thus reserve judgment on the precise metes and bounds of the patent misuse doctrine

United States Court of Appeals for the Federal Circuit

PRINCO CORPORATION AND **PRINCO AMERICA CORPORATION,**

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2007-1386

On Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

DYK, Circuit Judge, with whom GAJARSA, Circuit Judge, joins, dissenting.

This case presents important questions concerning the scope of the doctrine of patent misuse. The critical question is whether the existence of an antitrust violation—in the form of an agreement to

suppress an alternative technology designed to protect a patented technology from competition—constitutes misuse of the protected patents. The majority holds that it does not. This seems directly contrary to the Supreme Court's view of patent misuse in its recent Illinois Tool Works decision, where the Court concluded that "[i]t would be absurd to assume that Congress intended to provide that the use of a patent that merited punishment as a felony [under the Sherman Act] would not constitute `misuse.'" Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 42 (2006).

The majority declines to give the patent misuse doctrine significant scope because it "is in derogation of statutory patent rights against infringement." Majority Op. at 4. Evidently the majority thinks it appropriate to emasculate the doctrine so that it will not provide a meaningful obstacle to patent enforcement. Outside of unlawful tying arrangements and agreements extending the patent term, the majority would hold that antitrust violations are not patent misuse and would leave to private and government antitrust proceedings the task of preventing abuse of patent monopolies, enforcement that is likely inadequate to the task. Indeed, the majority goes so far as to suggest that the misuse doctrine be eliminated entirely. Id. at 19 n.2. I read the relevant Supreme Court cases and congressional legislation as supporting a vigorous misuse defense, clearly applicable to agreements to suppress alternative technology. The majority cabins the doctrine in contravention of this Supreme Court authority. I respectfully dissent.

I

U.S. Philips Corporation ("Philips") commenced this proceeding alleging that Princo Corporation and Princo America Corporation (collectively, "Princo") had infringed

Philips' Raaymakers patents.[1] [1] Princo asserted a misuse defense. The overall issue is whether Philips has misused the asserted Raaymakers patents by (I) agreeing with Sony Corporation ("Sony") to jointly license the Raaymakers patents together with the Lagadec patent [2] and providing, as part of that agreement, that the alternative technology embodied in the Lagadec patent will not be licensed in competition with the Raaymakers technology, and (2) securing an agreement from the licensees of the Raaymakers and Lagadec patents barring them from using the Lagadec patent to develop an alternative technology that would compete with the Raaymakers technology. [3] The majority holds that there is no patent misuse because the Lagadec patent has not itself been asserted in this proceeding, see id. at 23, and, alternatively, because "Princo also failed to

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[1] U.S. Patent Nos. 4,999,825 and 5,023,856.

[2] U.S. Patent No. 4,942,565.

[3] I, like the majority, assume the existence of such an agreement between Philips and Sony, which is not denied by Philips. The agreement with the licensees was specifically found by the ITC. In the following discussion, for convenience, I treat both agreements as established fact. The majority misreads the dissent and the original panel opinion as limited to concerns about the Philips/Sony agreement. *See* Majority Op. at 23, 26, 34.

show that the asserted agreement had any anticompetitive effects because . . . the Lagadec technology was not a viable potential competitor to the technology embodied in the Raaymakers patents," id. at 29.

The majority's first holding—that the agreements cannot infect the Raaymakers patents—rests on the resolution of an issue that apparently never occurred to Philips nor the International Trade Commission ("ITC") and was never briefed nor argued before the panel. When this case was before the panel, neither Philips nor the ITC urged that the failure to assert infringement of the Lagadec patent in the ITC proceedings barred a finding of patent misuse. The leading treatise on the interrelationship between patent law and antitrust law viewed the panel opinion here, holding the misuse doctrine applicable to agreements to suppress alternative technology, "as standing for the unexceptional proposition that patent licensing schemes are illegal where they are used as part of a broader effort to fix prices and restrict competition." Herbert Hovenkamp et al., IP and Antitrust § 3.3g, at 3-42 to -43 (2d ed. 2010); see Princo Corp. u. Int'l Trade Comm'n, 563 F.3d 1301, 1314-15 (Fed. Cir. 2009). Now the court en bane holds that such agreements cannot constitute patent misuse. Contrary to the majority, the Supreme Court cases establish that license agreements that suppress alternative technologies can constitute misuse of the patents for the protected technology, and the regional circuits have agreed.

The majority's second holding—that there is no misuse unless the accused infringer shows that the

technology was, or would probably have become, commercially viable—is contrary to established patent misuse doctrine. That doctrine recognizes that antitrust violations may constitute misuse; that a presumption of anticompetitive effect flows from an agreement not to compete; and that the burden rests on the patent holder to justify such an agreement. Philips did not even attempt to make the required showing here.

II

At the outset, it is important to understand the extent to which the Raaymakers technology, incorporated into the so- called "Orange Book" standard and covered by the asserted patents, dominates the multibillion dollar market for recordable compact discs ("CD-Rs") and rewritable compact discs ("CD-RWs"). The first compact disc ("CD") was developed in the 1970s. Consumers could use the original CDs to play music and other recorded material, but they could not record data on the CDs. There was therefore a substantial demand for more advanced technologies that would enable the user to record and store data on reusable CDs. Philips initially acted alone in attempting to develop a technology for recordable CDs. Eventually Philips developed the CDR/RW technology with some assistance from a few of its competitors. CD-R technology allows consumers to purchase blank discs that they can fill with data. Similarly, CD-RW technology enables consumers to record, erase, and re-record data on discs. A key feature of CD-Rs and CDRWs is that they are compatible on all CD audio players and CD-ROM drives.

Philips created a patent pool for the CD-R/RW technology with its competitors and offered joint licenses for their patents. Although Sony Corp., Taiyo Yuden Co. Ltd., Ricoh, and Yamaha all contributed patents to the Orange Book patent pool, Philips has been the sole company responsible for administering the CD-R/RW licensing programs and for entering agreements to license the packages. Philips has charged a very substantial royalty to companies using the Orange Book standard. The royalty rate has ranged from one-half to two-thirds the manufacturers' selling price for the discs. This has enabled Philips and the other members of the patent pool to collectively secure hundreds of millions, if not billions, of dollars in revenue from the sale of those discs.

Despite the high licensing fees for the Orange Book standard, Philips' Orange Book standard achieved market dominance. The CD-R and CD-RW technologies have revolutionized the storage, use, and transfer of computer data, rapidly replacing the previous storage technology. In re Certain Recordable Compact Discs & Rewritable Compact Discs, No. 337-TA-474, slip op. at 386 (Int'l Trade Comm'n Oct. 24, 2003) ("Initial Determination"). By 2003 more than 100 manufacturers had received licenses to patents under the Orange Book standard. Billions of discs manufactured in accordance with this standard have been sold each year. Every CD-R or CD-RW disc now manufactured is produced according to the Orange Book standard. See id. at 390 ("All CD-Rs and CD-RWs sold in the marketplace must comply with Orange Book standards."). All of the manufacturers in the United

States, as well as in many other countries, are effectively required to license the Orange Book technology. As the ITC recognized in its Initial Determination, "[n]o one can manufacture or sell CD-R or CD-RW discs legally in the United States without taking a license to the Philips patents." Id. And, "Philips has the power to exclude a company from entering the CD-R or CD-RW market." Id. at 393. "Philips has market power in the United States market for licensing essential US patents for the manufacture of CD-R/RWs according to Orange Book standards because . . . there are no close substitutes for CD-R/RWs . . ." In re Certain Recordable Compact Discs & Rewritable Compact Discs, Inv. No. 337-TA-474, slip op. at 27 (Int'l Trade Comm'n Mar. 25, 2004) ("Final Determination"). No competitive alternative to either the CD-R or CD-RW disc has been developed to the point of commercial viability.

However, Sony did in fact develop a potential alternative to a key aspect of the Orange Book technology covered by the Raaymakers patents. This technology is reflected in the Lagadec patent. Both the Raaymakers and Lagadec technologies are directed to solving a known problem necessary to record data on CDs. Specifically, during the course of developing the CD-R standard, Philips and Sony engineers realized they needed to identify ways to encode position data on the "blank" or unrecorded CD-R/RWs so that the recorder could determine where along the spiral pregroove track its laser was positioned at any given time, or "absolute time"

position data.[4] Like the Lagadec technology, the Raaymakers technology encodes position data. The Lagadec and Raaymakers technologies differ in that Philips' technology employs "frequency modulation," an analog method of encoding information, whereas Sony's technology employs a digital method.

Although the parties recognized that the Lagadec patented digital method had the potential to compete with the patented Raaymakers technology, Philips and Sony determined not to license the Lagadec patent as an alternative to the Raaymakers patents. Instead, they agreed as part of the overall Orange Book agreement not to license the Lagadec patent as a competitive technology. At the same time, the Philips licensing agreement for the Orange Book patent pool, which included the Lagadec patent, prohibited licensees (CD manufacturers) from using any of the patents for non-Orange Book purposes, thus precluding the licensees from developing alternatives to the Orange Book. Initial Determination, slip op. at 370 ("All of Philips' CD-R and CDRW licenses contain a field of use provision limiting the license grant to use of the patents to manufacture . CD-R or CD-RW discs that comply with the Orange Book Standard.").

The rewards flowing to Sony from this series of agreements were considerable. In return for a minimal contribution to the Orange Book patent pool, Sony was rewarded a substantial portion of the

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[4] "Absolute time" refers to the fact that the laser's location is expressed in terms of the time required to scan the spiral groove from the start of the disc to the current position.

royalties. For example, the Lagadec patent was the only essential Sony patent in the CDRW poo1.[5]For this contribution Sony received 36 % of the royalties under the CD-RW patent pool. Philips' employees conceded that Sony employees "were more observers than real active developers of the CD-RW format. J.A. 1830 (testimony of Dr. Jacques Heemskerk); see also J.A. 3254 (explaining that the CD-RW format was "written in close c- operation [sic] with Ricoh and with the passive support of Sony."). The situation was not much different with respect to the CD-R pool where, out of eleven supposedly essential patents, only two of these were Sony patents, the Lagadec patent and Patent No. 5,126,994 (the "Ogawa" patent).[6] See, e.g., J.A. 3534-65, J.A. 6592-6636.

The effect of these agreements was to protect the Philips Raaymakers technology from any actual or potential competition. As no one could license the Lagadec patent outside of the Orange Book patent pool, the patent was rendered useless as an alternative technology.

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[5] As explained in the panel opinion, the Lagadec patent was included in the patent pool because there was a concern that it might cover aspects of the Raaymakers technology, not because the Orange Book standard utilized the basic Lagadec technology. As noted, licensees were prohibited from using the Lagadec technology in competition with the Orange Book standard.

[6] The ALJ found that the Ogawa patent was improperly classified as essential given that economically viable alternatives to this patented technology existed outside the pool. Initial Determination, slip op. at 212-13. In its review, the ITC took no position on the ALJ's analysis of this patent. Final Determination, slip op. at 50-51.

III

Princo manufactures CDs covered by the Raaymakers and Orange Book patents. It declined to pay royalties on those patents. Philips initiated a proceeding before the ITC seeking to exclude Princo's products from the United States pursuant to section 337(a)(1)(B) of the Tariff Act of 1930, 19 U.S.C. § 1337(a)(1)(B). Princo asserted a misuse defense. The ITC initially found misuse because of patent tying by Philips—the practice of tying patents essential to practicing the Orange Book to those that were not essential. Final Determination, slip op. at 4—5. We concluded that there had been no unlawful tying with respect to the patents then in question, and remanded for a determination of whether Philips had engaged in other activities that constituted misuse. U.S. Philips Corp. v. Int'l Trade Comm'n, 424 F.3d 1179, 1197-99 (Fed. Cir. 2005). The ITC rejected Princo's contention that including the Lagadec patent in the patent pool constituted improper tying (an issue not originally addressed) and that agreements not to license the Lagadec patent in competition with the Orange Book technology were also not misuse. The original panel opinion agreed that the ITC had properly rejected the Lagadec tying claim, but erred in rejecting the misuse claim based on the agreement not to license the Lagadec patent as an alternative technology. The panel remanded to determine whether such an agreement existed and whether there was an anticompetitive effect. The en banc court holds that the agreements not to license

the Lagadec patent do not constitute misuse.[7] I disagree.[8]

IV

The majority first holds that even if the anticompetitive behavior alleged here constitutes patent misuse (an issue addressed in the next section), this conduct does not involve misuse of the asserted Raaymakers patents, but only of the Lagadec patent. The Raaymakers patents can thus be enforced. However, it is clear that if the Philips/Sony agreement and the Philips agreements with licensees constituted misuse, they constituted misuse of the Raaymakers patents. The agreements to suppress the Lagadec technology were not separate or collateral agreements, as the majority suggests, but were part and parcel of the same course of conduct designed to protect the Raaymakers patents from competition from the alternative Lagadec technology. That constitutes misuse of the Raaymakers patents.

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[7] The majority does not disturb the original panel opinion's ruling that the inclusion of the Lagadec patent in the patent pool did not constitute unlawful patent tying. The permissibility of including Lagadec in the pool does not answer the question of whether Philips could secure agree ments from Sony and the licensees not to use the Lagadec technology for non-Orange Book purposes.

[8] While a remand to determine the existence of the Philips/Sony agreement under my view would still be necessary, even though Philips has not disputed the existence of that agreement, based on the subsequent briefing I am now convinced that there is no need for a remand on the issue of anticompetitive effects, as I discuss below.

Patent misuse is defined as extending the scope of a patent beyond the monopoly conferred by the patent laws. See Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 136 (1969). As the Supreme Court stated in United States v. Univis Lens Co., "the particular form or method by which the monopoly is sought to be extended is immaterial." 316 U.S. 241, 251-52 (1942).

As the majority points out, see Majority Op. at 15-16, many of the misuse cases have involved assertions that the asserted patent was used to gain a broader monopoly by tying the licensing of patent rights to the purchase of an unpatented product or by agreeing to extend the patent term. See, e.g., Brulotte v. Thys Co., 379 U.S. 29, 33 (1964); Transparent-Wrap Mach. Corp. v. Stokes & Smith Co., 329 U.S. 637, 644 (1947). The issue here is whether licensing agreements that are designed to protect patented technologies from competition and thereby extend their monopoly should fare any better. In holding that such licensing agreements do not constitute patent misuse, the majority ignores binding Supreme Court precedent.

The Supreme Court in Ethyl Gasoline Corp. v. United States, 309 U.S. 436, 456-57 (1940), made clear that patent misuse occurs when patent licensing agreements are used "to control conduct by the licensee not embraced in the patent monopoly." In United States u. United States Gypsum, 333 U.S. 364 (1948), the Court explicitly held that the use of license agreements to fix prices and suppress competition from alternative technologies constituted patent misuse. There, U.S. Gypsum, which produced

gypsum and gypsum products, found itself in a situation similar to Philips. It had acquired the "most significant" patents covering so-called closed edge boards. Id. at 368. It acquired additional significant patents from co-conspirators and licensed those patents to virtually the entire industry. The patented, closed edge boards competed with unpatented, open edge boards. U.S. Gypsum, companies that had assigned patents to U.S. Gypsum, and the other manufacturers licensed by U.S. Gypsum agreed to suppress competition from open edge boards and maintain higher prices by concertedly entering into industry-wide patent licensing agreements that effectively eliminated open edge boards from the market. The Court held that these licensing agreements to suppress competition violated the antitrust laws and constituted misuse of the closed edge board patents: "the testimony of the witnesses is ample to show that there was an understanding, if not a formal agreement, that only patented board would be sold. Such an arrangement in purpose and effect increased the area of the patent monopoly and is invalid." Id. at 397. The Court explained that there is

> no support for a patentee, acting in concert with all members of an industry, to issue substantially identical licenses to all members of the industry under the terms of which the industry is completely regimented, the production of competitive unpatented products suppressed, a class of distributors squeezed out, and prices on unpatented products stabilized.

Id. at 400. Contrary to the majority, Gypsum is not simply an antitrust case. The Gypsum case was specifically cited by the Supreme Court in Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation—the most recent Supreme Court articulation of patent misuse—as one of "the series of decisions in which the Court has condemned attempts to broaden the physical or temporal scope of the patent monopoly." 402 U.S. 313, 343, 344 n.40 (1971). Gypsum, together with the panel decision in this case, has also been cited by the leading treatise to exemplify the point that agreements not to compete can constitute misuse of patents. Hovenkamp et al., supra, § 3.3g, at 3-42.

A number of courts have followed Gypsum and held that license agreements suppressing the manufacture or sale of competing goods constitute misuse of the licensed patents— whether the non-compete agreement binds the licensees or the licensor. One of these decisions is Compton v. Metal Products, Inc., 453 F.2d 38 (4th Cir. 1971), a case explicitly rejected by the majority. See Majority Op. at 23 n.4. In Compton, as part of a license agreement, the patent holder agreed not to compete with the licensee for a period of years. 453 F.2d at 44. In holding that this agreement constituted patent misuse, the Fourth Circuit explained that

> the agreement falls outside the limited monopoly granted by the patent laws, because in exclusively licensing his patents, the patentee himself could neither require non-competition beyond the term of the patents nor as to items

> not covered by the patents. We think that by agreeing to restrictions on his own competition which he could not compel of others, the patentee has extended the monopoly granted by the patent laws beyond its legal bounds . . . .

Id. at 44-45 (citation omitted). Contrary to the majority, Compton does not represent an "expansive patent misuse theory," see Majority Op. at 23 n.4, but is consistent with the Supreme Court's Gypsum case as well as other court of appeals cases that hold that license agreements not to compete constitute misuse of the licensed patents. See Berlenbach v. Anderson & Thompson Ski Co., 329 F.2d 782, 784 (9th Cir. 1964) (holding that a non-competition clause in a patent license constitutes misuse without proof of substantial lessening of competition); Nat'l Lockwasher Co. v. George K Garrett Co., 137 F.2d 255, 257 (3d Cir. 1943) (finding misuse of a patent where patent licensees had agreed to "make and sell no form of non-entangling Spring Washers except such as are covered by said patent"); Krampe v. Ideal Indus., 347 F. Supp. 1384, 1387 (N.D. Ill. 1972) (holding a non-competition clause in a patent licensing agreement binding the licensee not to sell competing products constitutes patent misuse); Park-In Theatres v. Paramount Richards Theatres, 90 F. Supp. 730 (D. Del. 1950) (holding a non-competition clause in a patent license agreement binding the licensee not to sell or promote competing products constitutes misuse), aff'd, 185 F.2d 407 (3d Cir. 1950); see also SCM Corp. v. Xerox, 645 F.2d 1195, 1204 (2d Cir. 1981) ("While . . . a concerted refusal to license patents is no less unlawful than other concerted

refusals to deal, in such cases [where the parties act in concert] the patent holder abuses his patent by attempting to enlarge his monopoly beyond the scope of the patent granted him." (emphasis added)). Indeed, the leading treatise on patent law states that "prohibiting production or sale of competing goods" is a "classic act of misuse" and notes that the "courts have consistently taken the view that a provision in a patent license requiring a party not to deal in products that compete with the patented product constitutes misuse per se." 6 Donald S. Chisum, Chisum on Patents § 19.04 [3], [3] [b], at 19-451, -463 (2010). If an agreement to suppress competition in an unpatented product to protect a patented product constitutes misuse, it is clearly misuse where the agreement involves the suppression of one patented technology to protect another patented technology from competition, as is the case here.

The same approach has been taken in copyright law where courts have found copyright misuse based on suppression of competing products. For example, in Lasercomb America, Inc. v. Reynolds, the Fourth Circuit held that the plaintiff's requirement in its standard licensing agreement forbidding the licensee and all its employees from developing any kind of software competitive with the plaintiffs application constituted misuse and rendered the copyrighted software unenforceable. 911 F.2d 970, 973, 979 (4th Cir. 1990). The Ninth Circuit in Practice Management Information Corp. v. American Medical Association held that licensing a copyrighted product in exchange for an agreement not to use a competitor's product constituted misuse and rendered the copyright unenforceable. 121 F.3d 516,

520-21 (9th Cir. 1997). These cases establish that, regardless of the form of intellectual property involved, a party's efforts to use its intellectual property to suppress a competitive product constitutes unacceptable misuse.

The majority attempts to distinguish Gypsum and apparently also its progeny by suggesting that they involve a single agreement, whereas here the non-compete agreements with respect to the Lagadec patent were independent of or collateral to the agreements with respect to the Raaymakers patents. See Majority Op. at 25-26.

What the majority ignores is that the non-compete agreements here, as in Gypsum and the court of appeals misuse cases, are part and parcel of the agreements governing the asserted patents (here, the Raaymakers patents). The agreement between Philips and Sony with respect to the suppression of the Lagadec technology appears in the same letter agreement between Philips and Sony that provided for the pooling of their patents, including the Raaymakers patents, and the division of royalties.[9]

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[9] The parties entered into the letter agreement on September 7, 1993 (the "1993 agreement"). The 1993 agreement gave Philips an "exclusive right to license such Patent Rights . . . for use in Articles listed in Appendix 2." J.A. 3319. Appendix 2 lists "CD-WO" (*i.e.*, CD-R) "Disc" and "Recorder." *Id.* at 3321. That agreement further noted that "we confirm with respect to the aforementioned Patent Rights . . . that we will license such Patent Rights outside the jointly agreed upon system standards only in cases which can reasonably be considered exceptional." *Id.* at 3320. As noted earlier, both the majority and I assume for the purposes of this appeal that the

The agreement between Philips and its licensees not to use the Lagadec technology in competition with the Raaymakers technology appears in the agreements licensing the Raaymakers technology. The overall effect of the two agreements was to prevent competitors from utilizing the alternative Lagadec technology and to protect the licensed Raaymakers patents from competition with the Lagadec technology. The licenses to the asserted patents were "condition[ed] ... so as to control conduct by the licensee not embraced within the patent monopoly" of the asserted patents. See Ethyl, 309 U.S. at 456-57. The agreements with respect to Raaymakers and Lagadec cannot be treated separately, as the Supreme Court held in Gypsum and as the circuit courts held in the other cited cases. Nor is it significant that two separate agreements (the licensee agreements and the Philips/Sony agreement) are involved. In Gypsum itself, the agreements to suppress the competing open edge boards were in fact not even formally part of the license agreements, but were treated together because they were directed to the same course of conduct. See U.S. Gypsum, 333 U.S. at 384-85. Thus, the agreement to promote the Raaymakers patents cannot be separated from the agreement to suppress the Lagadec patent.[10] This misconduct renders both

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agreement obligated Sony to refrain from licensing the Lagadec patent for any non-Orange Book purpose.

[10] Indeed, a similar issue was specifically addressed in Morton Salt Co. u. G.S. Suppiger Co., 314 U.S. 488 (1942). In Morton Salt, the patent holder had licensed patents for a salt dispenser on condition that the licensees use only Morton's salt in the dispensers. Morton argued that the agreement with

the Raaymakers and Lagadec patents unenforceable.[11]

The majority alternatively suggests that the existence of an antitrust violation involving an agreement not to compete and the extension of the patent monopoly are not enough to establish misuse. Rather, misuse can only exist if there is an improper leveraging of the patent. In the majority's view, "[w]hat patent misuse is about . . . is 'patent leverage,' i.e., the use of the patent power to impose overbroad conditions on the use of the patent in suit that are not within the reach of the monopoly granted by the Government.'" Majority Op. at 24.

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respect to the salt dispensers should be treated separately and that the anticompetitive conduct at most only rendered the salt purchase agreement unenforceable; it did not render the salt dispenser patent unenforceable. The Court in Morton Salt disagreed, holding that the salt dispenser patent was itself unenforceable. *Id.* at 492-94. Here, as in Morton Salt, the agreement with respect to the suppression of the Lagadec patent cannot be separated from the Raaymakers patents.

[11] The concurrence suggests that "at first blush there seems little difference between the agreement allegedly entered into here and Sony granting an exclusive license to Philips on the Lagadec patent, which Philips then decides not to practice." Concurring Op. at 2. The difference here is two-fold: Philips did not on its own simply decide not to practice the Lagadec patent in competition with the Orange Book; Philips agreed with Sony that it would not do so. Philips and Sony also agreed not to grant manufacturers licenses to practice Lagadec in competition with the Orange Book. Thus, it was an agreement to suppress a potentially competitive technology from ever reaching the market. Such a license agreement clearly lies outside the bounds of the patent owner's right to exclude others from using his or her invention.

While the misuse cases cited by the majority refer to patent leveraging, that is simply because leveraging of the patent—in tying and patent term extension cases—is a necessary part of the antitrust violation. Those cases do not suggest that leveraging is a necessary element where there is an agreement not to compete with the asserted patent. With one exception, Gypsum and the other court of appeals patent misuse cases discussed above did not rest on any finding of patent leveraging, but rather on the existence of an agreement not to compete that protected the asserted patents from competition. The one concerted action case that does mention leveraging simply assumes that leveraging is established by proof that the non-compete agreement was secured by compensating the licensee with a patent license. See Nat'l Lockwasher, 137 F.2d at 256. Here too the Orange Book licensees were in effect compensated for their agreement not to use Lagadec as an alternative to the Orange Book technology with a license to the Raaymakers patents, and Sony was compensated for its agreement not to license Lagadec for non- Orange Book uses by license fees from the Raaymakers patents. That is sufficient proof of leveraging if proof of leveraging is required at all in concerted action cases.

The majority suggests that asserting a patent misuse defense against the patent covering the suppressed technology (here, Lagadec) or an antitrust suit would provide a remedy for anticompetitive behavior. See Majority Op. at 23, 26, 28 n.6. The clear ineffectiveness of both of these remedies demonstrates the importance of a misuse defense against the protected patents (here, the

Raaymakers patents). There is no realistic prospect of securing a misuse determination with respect to the suppressed patent. This is because there is no need for Philips to assert the Lagadec patent and open itself to a misuse defense. The mere threat of an infringement suit is typically sufficient to prevent a potential competitor from devoting the resources necessary to develop an alternative technology; the technology is thus suppressed at the outset. So too a potential competitor (wishing to secure an advance determination of invalidity) has no remedy by way of declaratory judgment to secure a determination that the patent for the alternative technology is unenforceable given our jurisprudence demanding a showing of a concrete plan to enter the market as the condition for testing patent validity and enforceability. See, e.g., Benitec Austl., Ltd. v. Nucleonics, Inc., 495 F.3d 1340, 134647 (Fed. Cir. 2007).

The antitrust laws also provide no adequate remedy for the suppression of competition. Private enforcement of the antitrust laws in this context is virtually impossible. Potential purchasers of the alternative product have no remedy.[12] The ability of even a competitor to sue for damages is highly problematic given the early stage of development of the Lagadec technology. And injunctive relief at the request of a competitor is unlikely to take effect in a time frame that would allow for the development of

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[12] See generally Ill. Brick Co. v. Illinois, 431 U.S. 720, 728-29 (1977) (prohibiting an indirect purchaser from suing a manufacturer to recover gains the manufacturer obtained by violating the antitrust laws).

an alternative technology given likely litigation delays. The difficulty of securing a misuse determination with respect to the suppressed patent or traditional antitrust relief underscores the importance of applying the doctrine of patent misuse to the protected patents. Unless the protected patents are held unenforceable, there will be no adverse consequence to the patent holder for its misconduct nor will the patent misuse be remedied.

Contrary to the majority, the enactment of amendments to 35 U.S.C. § 271 in 1988 does not support the majority's position. While the majority is correct that the legislation was designed to cabin the misuse doctrine, it did so only by making clear that some practices that did not constitute antitrust violations did not amount to misuse.[13] [13] The legislation did not remotely suggest that antitrust violations did not constitute misuse. It is quite clear that Congress intended that the patent misuse doctrine could extend to a refusal to license patented technologies by parties acting in concert. In 1988, Congress enacted 35 U.S.C. § 271(d)(4), providing that no patent owner shall be deemed guilty of misuse by reason of having "refused to license or use any rights to the patent." Pub. L. No. 100-703, § 201, 10 Stat. 4674, 4676 (1988) (codified at 35 U.S.C. § 271(d)(4)). The implication from the face of the statute is that an agreement not to license a patent

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[13] The one possible exception is the provision in § 271(d)(5) providing that tying is not misuse without a showing of market power. But the Supreme Court in Illinois Tool Works changed antitrust law to make it consistent with § 271(d). *See* 547 U.S. at 40-43.

could, however, be patent misuse, and the legislative history confirms what is plain from the language.

Congressman Kastenmeier, the author of this amendment, explained that "the underlying policy for [the misuse] doctrine has been an effort by the courts to prevent a person who has obtained a Government granted right to exclude competition from overreaching the scope of the patent." 134 Cong. Rec. 32,294 (1988). He noted in particular that the misuse "doctrine has been applied to a wide variety of circumstances including . . . use of covenants not to compete." Id. at 32,294-95 (emphasis added).

Kastenmeier also stated that "[c]odification of the 'refusal to use or license' as not constituting patent misuse is consistent with the current caselaw and makes sense as a matter of public policy." 134 Cong. Rec. at 32,295. He cited SCM in support of this proposition. Id. Significantly, the court in SCM explained that "[w]hile ... a concerted refusal to license patents is no less unlawful than other concerted refusals to deal, in such cases [where the parties act in concert] the patent holder abuses his patent by attempting to enlarge his monopoly beyond the scope of the patent granted him." 645 F.2d at 1204 (emphasis added). The legislative history thus confirms that an agreement to suppress a competitive patent, which would enlarge the patent holder's monopoly beyond the scope of the patent, would constitute patent misuse.

As noted above, in Illinois Tool Works the Supreme Court in interpreting § 271(d) concluded that it would be "absurd" to suggest that Congress intended that agreements violating the Sherman Act

would not constitute patent misuse. See Ill. Tool Works, 547 U.S. at 42. In holding that Philips' anticompetitive behavior cannot constitute patent misuse because the Lagadec patent was not asserted, the majority has significantly narrowed the patent misuse doctrine and has disregarded governing Supreme Court authority and congressional intent.

V

I turn next to the majority's second holding that "even if Philips and Sony engaged in an agreement not to license the Lagadec patent for non-Orange-Book purposes, that hypothesized agreement . . . did [not] have anticompetitive effects in the relevant market." Majority Op. at 41. This is so, according to the majority, because "[w]hat Princo had to demonstrate was that there was a 'reasonable probability' that the Lagadec technology, if available for licensing, would have matured into a competitive force in the storage technology market." Id. at 38. In addressing the issue of anticompetitive effects, we look to antitrust authorities. As the Chisum treatise recognizes, "[i]l a practice does rise to the level of an antitrust violation, it will also constitute misuse." 6 Chisum, supra, § 19.04 [2], at 19-442.[14] As noted

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[14] As the ITC has recognized here, our court "has indicated that the rule of reason standard to be applied is that developed in antitrust law." In the Matter of Certain Recordable Compact Discs and Rewritable Compact Discs, Inv. No. 337-TA-474, slip op. at 52 (Int'l Trade Comm'n Feb. 5, 2007) ("February 2007 ITC Determination"); *see also* Hovenkamp et al., *supra*, § 3.2d at 3-11 (explaining that the misuse analysis is "largely coextensive with antitrust doctrine").

earlier, this essential precept of patent misuse doctrine was confirmed by the Supreme Court in Illinois Tool Works. See 547 U.S. at 42. Indeed, Supreme Court cases, as well as our own cases and other circuit cases, suggest the misuse doctrine should be broader than the antitrust prohibitions.[15] As we explained in C.R. Bard, Inc. v. M3 Systems, Inc., "Matent misuse is viewed as a broader wrong than antitrust violation because of the economic power that may be derived from the patentee's right to exclude. Thus misuse may arise when the conditions of antitrust violation are not met." 157 F.3d 1340, 1372 (Fed. Cir. 1998). The requirement of establishing an "anticompetitive effect" is necessarily satisfied by showing that the practice would violate the antitrust laws.

Significantly, neither the ITC nor Philips argued that the agreement would not violate the antitrust laws. See En Banc Oral Arg. at 27:03—:08 (counsel for the ITC) ("Your honor . . . that wasn't an issue before the Commission."); id. at 43:35—:39 (counsel for Philips) (conceding that an arrangement between two companies to pool their patents, which were developed independently, and to set a standard

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[15] See *Zenith Radio*, 395 U.S. at 140-41 (explaining that the lower court could find patent misuse on remand even if the alleged conduct did not constitute an antitrust violation); Monsanto Co. v. Scruggs, 459 F.3d 1328, 1339 (Fed. Cir. 2006) (quoting *C.R. Bard*, 157 F.3d at 1372); C.R. Bard, 157 F.3d at 1372; Practice Mgmt., 121 F.3d at 521; Lasercomb, 911 F.2d at 978; Senza-Gel Corp. v. Seiffhart, 803 F.2d 661, 668 (Fed. Cir. 1986).

"could be [an antitrust violation] under a particular [set of] facts or circumstances").

Under antitrust analysis, an agreement such as that between Philips and Sony to suppress the Lagadec patent may appropriately be evaluated under the rule of reason. But even under the rule of reason, agreements between competitors not to compete are classic antitrust violations. See, e.g., United States v. New Wrinkle, Inc., 342 U.S. 371, 380 (1952) ("An arrangement was made between patent holders to pool their [competing] patents and fix prices on the products for themselves and their licensees. The purpose and result plainly violate the Sherman Act."); Standard Oil Co. (Ind.) v. United States, 283 U.S. 163, 175 (1931) ("[T]he primary defendants own competing patented processes for manufacturing an unpatented product . . . ; and agreements concerning such processes are likely to engender the evils to which the Sherman Act was directed.").

Such anticompetitive behavior designed to foreclose competition from other technologies or increase prices has been a particular problem in the patent area because patents give competitors the legal right to foreclose competition. But while it is perfectly lawful for the owner of a patent to refuse to license it for any reason or no reason at all, see 35 U.S.C. § 271(d), this right does not extend to agreements among competitors. The Supreme Court recently confirmed that agreements between separate actors with respect to intellectual property licensing are invalid if they fail the rule of reason analysis. See Am. Needle, Inc. v. Nat'l Football

League, 130 S. Ct. 2201, 2206-07 (2010). And the Court has held that patent pooling agreements involving agreements not to compete violate the antitrust laws. See New Wrinkle, 342 U.S. at 380; Standard Oil, 283 U.S. at 175. Agreements not to compete are a matter of particular concern where, as here, the competitors collectively enjoy a monopoly position and set standards for an industry. Agreements between competitors to engage in standard setting may force an entire industry to adhere to a particular standard, effectively foreclosing competition from alternatives. Indeed, the Supreme Court has routinely condemned efforts to use standard-setting agreements to suppress competition of alternative products. See Am. Soc'y of Mech. Eners v. Hydrolevel Corp., 456 U.S. 556, 571 (1982) (cautioning that "a standard-setting organization . . . can be rife with opportunities for anticompetitive activity," which can give members "the power to frustrate competition in the marketplace" and harm competitors); Standard Sanitary Mfg. Co. v. United States, 226 U.S. 20, 48-49 (1912). Most significantly, as the Supreme Court decision in Gypsum and the court of appeals cases cited earlier confirm, these basic principles apply in concerted action cases involving the suppression of alternative technology.

Despite this long history of condemning agreements to suppress competitive technologies, the majority holds that there was no misuse here. The majority recognizes that the Lagadec technology provided an alternative to the Raaymakers

technology, [16] but the majority finds no misuse because Philips and Sony were involved in a joint venture and there has been no showing that the Lagadec technology was commercially viable or probably would have become so. The majority's analysis of anticompetitive effects rests on three fundamental errors.

First, the majority errs in holding that the burden rests on the alleged infringer, Princo, to show anticompetitive effects. While the burden rests on Princo to show patent misuse in general and an antitrust violation in particular, Princo's initial burden is satisfied by establishing the existence of an agreement to suppress a competitive technology.

Where an agreement is considered "inherently suspect," courts apply a "quick look" rule of reason analysis. An agreement is inherently suspect "[i]f, based upon economic learning and the experience of the market, it is obvious that a restraint of trade likely impairs competition." PolyGram Holding Inc. v. Fed. Trade Comm'n, 416 F.3d 29, 36 (D.C. Cir. 2005). Under such an agreement, "no elaborate industry analysis is required to demonstrate the anticompetitive character of such an agreement." NCAA v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 109 (1984) (citations omitted). "[Nil agreement not to compete in terms of price or output" is inherently suspect. Id. The agreement to suppress the Lagadec patent, a competing technology, surely

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[16] See also February 2007 ITC Determination, slip op. at 24 ("Lagadec constitutes, at best, a substitute technology . . .").

falls within this category. See Cal. Dental Assn v. Fed. Trade Comm'n, 526 U.S. 765, 769-71 (1991) (describing numerous cases in which the Supreme Court and the courts of appeals have applied the "quick look" analysis to anticompetitive agreements); En Banc Br. of Amicus Fed. Trade Comm'n 25 ("On its face, an agreement between Philips and Sony . . . that the latter would withhold its technology from the market is 'an agreement not to compete in terms of price or output.'" (quoting NCAA, 468 U.S. at 109)).[17]

Competitive harm is thus presumed, and the burden falls on Philips to "come[] forward with some plausible (and legally cognizable) competitive

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[17] An inherently suspect restraint on competition requires no showing by the plaintiff of market power. See Cal. Dental, 526 U.S. at 779 ("[A] challenge to a 'naked restraint on price and output' need not be supported by 'a detailed market analysis' in order to 'requir[e] some competitive justification' . ." (quoting NCAA, 468 U.S. at 110)); PolyGram, 416 F.3d at 36. If a restraint does not qualify as inherently suspect, the plaintiff will need to demonstrate anticompetitive effect either "indirectly by proving that the defendant possessed the requisite market power within a defined market or directly by showing actual anticompetitive effects." Law v. NCAA, 134 F.3d 1010, 1019 (10th Cir. 1998); see Fed. Trade Comm'n v. Ind. Fed'n of Dentists, 476 U.S. 447, 460-61 (1986); Hovenkamp et al., *supra*, § 30.3(b), at 30-10. Even if the agreements here are not inherently suspect, the ITC found that "Philips has market power in the United States market for licensing essential US patents for the manufacture of CD-R/RWs according to Orange Book standards because . . . there are no close substitutes for CD-R/RWs (ID at 160-64)." Final Determination, slip op. at 27. This ITC finding was sustained by our court in 2005. U.S. Philips Corp., 424 F.3d at 1186.

justification for the restraint." PolyGram, 416 F.3d at 36; see NCAA, 468 U.S. at 110 ("This naked restraint on price and output requires some competitive justification even in the absence of a detailed market analysis."); id. at 113 ("[T]hese hallmarks of anticompetitive behavior place upon petitioner a heavy burden of establishing an affirmative defense which competitively justifies this apparent deviation from the operations of a free market."); En Banc Br. of Amicus Fed. Trade Comm'n 25-26 (explaining that because the agreement with Sony to suppress the Lagadec patent was inherently suspect, the burden would be on Philips to show that the agreement was not anticompetitive).

Such justification "may consist of plausible reasons why practices that are competitively suspect as a general matter may not be expected to have adverse consequences in the context of the particular market in question, or . . . may consist of reasons why the practices are likely to have beneficial effects for consumers." PolyGram, 416 F.3d at 36. "If no legitimate justifications are set forth, the presumption of adverse competitive impact prevails and 'the court condemns the practice without ado.'" United States v. Brown Univ., 5 F.3d 658, 669 (3d Cir. 1993) (quoting Chi. Prof'l Sports Ltd. Pship v. NBA, 961 F.2d 667, 674 (7th Cir. 1992)). Given the inherently suspect nature of the agreements to suppress the Lagadec technology, Princo has satisfied its burden, and Philips has the burden to

establish a justification or lack of anti-competitive effects.[18]

Second, the majority appears to suggest that the "quick look" analysis should not apply and that Princo had the burden of demonstrating that the agreement to suppress the Lagadec technology could not be justified as part of the Philips/Sony joint venture agreement. See Majority Op. at 30-34, 39-41. While in theory procompetitive benefits from a joint venture could justify certain ancillary restraints in some circumstances, the burden remains on the party seeking to justify the restraint to establish precompetitive benefits. In fact, "joint ventures have no immunity from the antitrust laws." NCAA, 468 U.S. at 113. The Supreme Court has recently made clear that otherwise anticompetitive agreements with respect to intellectual property are not justified simply because they are part of a joint agreement. In American Needle, a professional football league, its teams, and a corporate entity the teams formed to

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[18] The majority relies on various cases to support its theory that "Princo had the burden of showing that the hypothesized agreement had an actual adverse effect on competition in the relevant market." *See* Majority Op. at 37-38. However, none of these cases involved an agreement not to compete or suggested there is a burden on the challenging party to establish that inherently suspect agreements had actual anticompetitive effects in the marketplace under the "quick look" rule of reason analysis. For example, the majority relies on California Dental, 526 U.S. 765. But California Dental involved not simply an agreement not to compete, but an agreement not to engage in certain types of potentially deceptive advertising. That agreement has no resemblance to the non-compete agreements here.

manage their intellectual property were sued by one of their licensees for allegedly violating § 1 of the Sherman Act, 15 U.S.C. § 1. 130 S. Ct. at 2206. The defendants asserted that their licensing activities were beyond the coverage of § 1 of the Sherman Act because they were collectively acting as a single entity. The Supreme Court disagreed, stating that "[t]he mere fact that the teams operate jointly in some sense does not mean that they are immune" from the antitrust laws. Id. at 2214.

Rather, a non-compete agreement arising out of a joint venture must still pass the rule of reason by providing some kind of justification, such as "where the agreement . . . is necessary to market the product at all." See Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 23 (1979); see also Am. Needle, 130 S. Ct. at 2216-17; Texaco, Inc. v. Dagher, 547 U.S. 1, 7 (2006). But here, as in American Needle, "it simply is not apparent that the alleged conduct was necessary at all." See Am. Needle, 130 S. Ct. at 2214 n.7. Even if a joint venture were necessary to produce the CD-R/RW standard, it does not follow that concerted activity in marketing, and suppressing, intellectual property was necessary to produce the standard. See id.; Major League Baseball Props., Inc. v. Salvino, 542 F.3d 290, 339 (2d Cir. 2008) (Sotomayor, J., concurring in the judgment) ("[A] restraint that is unnecessary to achieve a joint venture's efficiency-enhancing benefits may not be justified based on those benefits."); United States v. Visa U.S.A., 344 F.3d 229, 240-41 (2d Cir. 2003); Law v. NCAA, 134 F.3d 1010, 1019 (10th Cir. 1998). At oral argument before the panel, counsel for Philips conceded that he could think of no competitive

justification for the restraint, and Philips has pointed to no record evidence that the suppression agreement was necessary to serve the joint venture's legitimate goals.

The majority asserts that the agreement in question did no more than prevent Sony from competing with the joint venture, an agreement that the majority views as a legitimate ancillary restraint. See Majority Op. at 29, 33-34, 40.

There was no overall agreement that prevented Sony from competing with the joint venture, and the apparent agreement in 1993 to suppress Lagadec came well after the development of the Lagadec technology and its rejection for the Orange Book in 1987. There was, in short, no showing that suppression of Lagadec was necessary to achieve the joint venture's legitimate goals. Moreover, the majority ignores the fact that the Raaymakers patents and the Lagadec patent in combination prevented others from competing without a patent license. The Philips agreement with its licensees barred all CD manufacturers from using Lagadec as a competitive technology, and the Philips/Sony agreement not only barred Sony from competing, but also barred Sony from authorizing others to do so. It is one thing for Philips and Sony to agree that Sony would not compete; it is quite another to use the patent monopoly to prevent anyone from utilizing a competitive technology to compete with the joint venture and thus to preserve Phillips' virtual monopoly on recordable CD technology. Such agreements cannot be justified simply by relying on

the legitimacy of non-compete agreements with the joint venture participants.[19]

Third, the majority holds that the suppression of an alternative technology violates the antitrust laws and constitutes misuse only if the technology is commercially viable or is shown to have a "reasonable probability" of commercial viability. Majority Op. at 38. Quite apart from the majority's error in placing the burden on Princo to show probable commercial validity, the probable commercial viability test itself finds no support in the case law or antitrust policy, as the amicus brief for the FTC makes clear.[20] It has been explicitly

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[19] Nor is this a situation in which the Lagadec technology was jointly developed by Philips and Sony, as the majority suggests. *See* Majority Op. at 30-32. In fact, the record is clear that the Lagadec technology was separately developed by Sony. *See* J.A. 943 (describing solutions for encoding position data developed by Sony and presented to Philips, including the Lagadec solution). Even after the Lagadec technology was rejected for the Orange Book standard, Sony continued to pursue the technology, and applied for a U.S. patent over seven months after the Raaymakers technology was adopted for the Orange Book and the Lagadec technology was rejected. As noted on page 32, *infra*, the U.S. patent reflected improvements in the Lagadec technology.

[20] En Banc Br. of Amicus Fed. Trade Comm'n 23 C[H]ere Princo need not prove that a licensee attempting to develop new technology using the Lagadec methodology actually would have succeeded in creating a technically and commercially viable technology that could have competed successfully against Philips' and Sony's Orange Book standard. Such a 'showing * * is not an essential step in establishing that the [defendants] attempt to thwart its achievement * * * was an unreasonable restraint of trade.'" (quoting Ind. Fed'n, 476 U.S. at 461)).

rejected in antitrust cases[21] and misuse cases as well. See, e.g., Berlenbach, 329 F.2d at 784. The reasons for this rejection are readily apparent. Apart from the joint venture rationale, there is, first, no procompetitive benefit from the suppression of potential competition, no matter how remote the possibility of success. As the majority purports to recognize, see Majority Op. at 37, the antitrust laws are designed to protect not only full-fledged competition but also nascent competition. It is vitally important to protect competition from being stifled in its infancy. There is great difficulty in predicting commercial viability in the early stages of technological development, and indeed the patent system itself recognizes the importance of protecting technologies that have not yet reached the stage of commercial viability. There are numerous examples of technology that in the early stages of development were thought likely to fail but which eventually matured into successful commercial applications, including the electric light bulb, telephone, radio,

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[21] See, e.g., Standard Oil Co. (Cal.) v. United States, 337 U.S. 293, 309-10 (1949) (rejecting proof of the restrictive effect of alleged unlawful practices on competition because "what would have happened but for the adoption of the practice that was in fact adopted . . . would be a standard of proof, if not virtually impossible to meet, at least most ill-suited for ascertainment by courts"); United States v. Microsoft Corp., 253 F.3d 34, 79 (D.C. Cir. 2001) (en banc, per curiam) ("To require that [Sherman Act] liability turn on a plaintiffs ability or inability to reconstruct the hypothetical marketplace absent a defendant's anticompetitive conduct would only encourage monopolists to take more and earlier anticompetitive action.").

telegraph, and television.[22] Moreover, even a flawed technology may provide competitive benefits. The Areeda and Hovenkamp treatise points out "the inquiry [into whether a given patent is superior or inferior] is rarely worthwhile, for even inferior technologies can provide some, even if not perfect, competition to the patentee." 3 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law 707e, at 287 (3d ed. 2008). In short, it "would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will— particularly in industries marked by rapid technology advance and frequent paradigm shifts." Microsoft Corp., 253 F.3d at 79.

While it may be that proof by Philips that the Lagadec technology could never become commercially viable might be sufficient to defeat an antitrust violation, neither Philips' proof nor the ITC's findings reach that far. While Philips' witness suggested that commercial development of the Lagadec technology could be difficult, he did not testify that these difficulties could not be overcome. Indeed, the record appears to contain some evidence of Lagadec's potential. A 1986 Sony memorandum described the Lagadec proposal and indicated that potential solutions existed to some of the problems

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[22] Christopher Cerf & Victor S. Navasky, The Experts Speak: The Definitive Compendium of Authoritative Misinformation 225-27 (Villard Books 1998) (1994). For instance, in 1878 the British Parliamentary Committee concluded that Thomas Edison's electric light bulb was "good enough for our transatlantic friends . . . but unworthy of the attention of practical or scientific men." *Id.* at 225.

identified by Philips' expert. The Lagadec patent as issued reflected these solutions. See, e.g., Lagadec patent col.6 11.47-52, col.7 11.54-58 (discussing band-limitation to eliminate disturbance at high and low frequencies). The ITC found only that the commercial viability of the Lagadec technology was "doubtful," not that Philips had established that it could not be made commercially viable.

The majority's strict standard fails to provide adequate protection against the suppression of nascent technology, and allows patent holders free rein to prevent the development of potentially competitive technologies except in the most extreme and unlikely circumstances. I respectfully dissent.

APPENDIX B

United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

Eric L. Wesenberg, Orrick, Herrington & Sutcliffe LLP, of Menlo Park, California, argued for appellants. With him on the brief were Robert E. Freitas, Cynthia Wickstrom Zuniga, Kenneth J. Halpern, and Michael C. Ting.

Clara Kuehn, Attorney, Office of the General Counsel, United States International Trade Commission, of Washington, DC, argued for appellee.

With her on the brief were James M. Lyons, General Counsel, and Wayne W. Herrington, Assistant General Counsel.

Jonathan G. Cedarbaum, Wilmer Cutler Pickering Hale and Dorr LLP, of Washington, DC, argued for intervenor. With him on the brief were A. Douglas Melamed, Edward C. DuMont, and Perry A. Lange.

Appealed from: United States International Trade Commission

United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

On Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

DECIDED: April 20, 2009

Before BRYSON, GAJARSA, and DYK, Circuit Judges.

Opinion for the court filed by Circuit Judge DYK. Opinion concurring in the result in part and dissenting in part filed by Circuit Judge BRYSON.

DYK, Circuit Judge.

Princo Corporation and Princo America Corporation (collectively "Princo") appeal from a final order of the United States International Trade Commission ("Commission"). The Commission found that compact discs imported by Princo infringed claims of six patents asserted by U.S. Philips Corporation ("Philips") and rejected Princo's patent misuse defense. In re Certain Recordable Compact Discs & Rewritable Compact Discs, No. 337-TA-474, slip op. at 9 (Intl Trade Comm'n Feb. 5, 2007) ("Final Determination"), available at 2007 WL 1256290 (public version).

On appeal, Princo contends that the Commission erred by failing to find misuse with respect to two aspects of Philips's licensing practices: first, that Philips conditioned the license of Philips patents essential to the production of Orange Book compliant recordable compact discs upon the purchase of a license to an allegedly-nonessential Sony patent (the Lagadec patent), and second, that Philips allegedly agreed with Sony not to license the Lagadec patent as competing technology to the Orange Book. We affirm the Commission's rejection of Princo's misuse argument based on the first practice; we vacate and remand for further proceedings with regard to the second.

BACKGROUND

I

This is the second time that this case has come before us. See U.S. Philips Corp. v. Intl Trade

Comm'n, 424 F.3d 1179 (Fed. Cir. 2005) ("Philips I") (remanding case to Commission); see also U.S. Philips Corp. v. Princo Corp., 173 F. App'x 832 (Fed. Cir. 2006) ("Philips II") (appeal in related infringement action filed by Philips against Princo in federal district court); In re Princo Corp., 478 F.3d 1345 (Fed. Cir. 2007) ("Philips III") (same).

The central issue is again whether Princo's admitted infringement of Philips's patents is subject to a patent misuse defense. The background on the parties' dispute is as follows.

Philips and three other companies (Sony, Taiyo Yuden, and Ricoh) own patents relevant to the manufacture of recordable compact discs ("CD-Rs") and rewritable compact discs ("CD-RWs"). Some of those patents cover features of discs necessary to comply with the "Orange Book," a technical standard jointly developed by Philips and Sony in the late 1980s and early 1990s. Manufacturers produce CD-R and CD-RW discs in accordance with the Orange Book technical standard in order for the discs to be compatible with CD players and CD-ROM drives installed in computers and home entertainment systems, which are also manufactured in accordance with the corresponding Orange Book specifications.

In the early 1990s, the companies agreed to pool their Orange Book-related CDR and CD-RW patents. In return for a share of royalties from the pool, Sony, Taiyo Yuden, and Ricoh authorized Philips to administer the pool and to grant package licenses of their pooled patents to manufacturers interested in producing Orange Book compliant compact discs. Philips made available a joint license

to the pooled CD-R patents held by Philips, Sony, and Taiyo Yuden and a joint license to the pooled CDRW patents held by Philips, Sony, and Ricoh.[1] Licensees desiring to produce Orange Book discs could choose one of the packages offered by Philips; licenses to individual patents were not offered. The package licenses required a manufacturer to pay a per-disc royalty on each compact disc produced using at least one licensed patent. The per-disc royalty did not vary depending on which or how many features covered by licensed patents were actually used to produce the disc, "meaning that licensees must pay a royalty based on the number of discs manufactured regardless of how many of the patents are actually used in the manufacturing." Philips III, 478 F.3d at 1348.

Princo took a package license from Philips in 1997, but like several other manufacturers of CD-Rs and CD-RWs, ceased paying royalties soon thereafter. Philips filed a complaint with the International Trade Commission, contending that some of the manufacturers were violating 19 U.S.C. § 1337(a)(1)(B) by importing compact discs that infringed Philips's patents. There was no allegation that the manufacturers had infringed patents owned

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[1] Philips contends that in addition to the joint licenses, it also offered a package consisting of only the Philips patents. The Commission found otherwise, however, determining as a factual matter that Philips-only package licenses did not become available until 2000. In addition, in 2001 Philips added additional options by offering packages including only patents that Philips deemed "essential" to the manufacture of Orange Book compliant compact discs.

by other pool participants. On July 26, 2002, the Commission instituted an investigation and named nineteen respondents, not including Princo. In re Certain Recordable Compact Discs & Rewritable Compact Discs, 67 Fed. Reg. 48,948 (Intl Trade Comm'n July 26, 2002). Princo thereafter moved to intervene and was added as a respondent.

Although it initially contested the issue of infringement, Princo now admits that its products are within the scope of Philips's patents. Instead, Princo asserts patent misuse by Philips as a defense. Before the Commission, Princo argued that Philips improperly expanded the scope of its statutory patent rights through price fixing, price discrimination, and the use of mandatory package licensing to force manufacturers to take licenses to "nonessential" pool patents in order to obtain licenses to pool patents that were in fact essential to the manufacture of CD-Rs or CD-RWs. The administrative law judge ("All") agreed, ruling that the Philips patents were unenforceable due to patent misuse per se and under the rule of reason. See In re Certain Recordable Compact Discs & Rewritable Compact Discs, No. 337-TA-474, slip op. at 219-20 (Intl Trade Comm'n Oct. 24, 2003) ("Initial Determination"). With regard to per se misuse, the ALJ determined that Philips and other pool members fixed prices at higher than competitive levels and charged excessive royalties that would drive manufacturers out of the market, and that Philips committed improper price discrimination by exempting favored disc manufacturers from paying royalties. With regard to misuse under the rule of reason, the ALJ found that anticompetitive effects

flowed from the inclusion of nonessential patents in the mandatory package licenses and from the excessive fixed royalty rates set by the pool.

On review, the Commission affirmed the ALJ's misuse determination, but on narrower grounds. In re Certain Recordable Compact Discs & Rewriteable Compact Discs, No. 337-TA-474, USITC Pub. No. 3686, slip op. at 4-5 (Apr. 11, 2004). The Commission took no position on the ALJ's ruling of patent misuse per se based on theories other than tying, and no position on eight of the twelve pool patents the ALJ found to be nonessential for the manufacture of Orange Book compliant CD-R/RWs and hence improperly tied to the essential patents. Id. at 5 n.3, 50-51. Focusing its analysis on the four remaining allegedly-nonessential patents, the Commission concluded that Philips's "practice of mandatory package licensing constitute[d] patent misuse per se as a tying arrangement between (1) licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards and (2) licenses to [the four] other patents that are not essential to that activity." Id. at 4-5. It agreed with the ALJ that the four patents were not actually essential because for the technology covered by each patent a non-infringing, "economically viable[] alternative technology existed" that could be used to create an Orange Book compliant disc. Id. at 61. It also adopted the ALJ's conclusion that the tying arrangement constituted misuse under the rule of reason. Id. at 50.

On appeal, we reversed and remanded. Philips I, 424 F.3d at 1198-99. We explained that

offering the package licenses at issue did not constitute a per se violation "[i]n light of the efficiencies of package patent licensing and the important differences between product-to-patent tying arrangements and arrangements involving group licensing of patents." Id. at 1193. In addition, we concluded that Philips's inclusion of the four allegedly-nonessential patents in the package licenses did not constitute misuse under the rule of reason because those patents were essential rather than non-essential. The patents were essential because they covered features necessary for Orange Book compliance, and the record did not disclose that "any commercially viable alternative actually existed" to those patents. Id. at 1197-98. However, because the Commission's relatively narrow decision based on tying of the four patents "did not address all of the issues presented by the administrative law judge's decision under both the per se and rule of reason analysis," we remanded for further proceedings concerning Princo's remaining theories of misuse. Id. at 1198.

II

Among Princo's arguments on remand were issues concerning misuse relating to one particular pool patent, Sony's U.S. Patent No. 4,942,565 (the "Lagadec patent" or "'565 Patent"), and those are the sole issues on appeal. A brief description of the development of the Orange Book standard and the relationship of the Lagadec patent to other pool patents is necessary to an understanding of Princo's arguments.

Both the Lagadec patent and Philips's U.S. Patent Nos. 4,999,825 and 5,023,856 (collectively the "Raaymakers patents") were included in the CD-R/RW patent pools. The Raaymakers patents are undeniably essential to the manufacture of Orange Book compliant discs. The present dispute (as to the tying issue) centers on whether the Lagadec patent is also essential. The Lagadec and Raaymakers patents stem from the joint efforts of Philips and Sony engineers to develop recordable CDs in the late 1980s. The CD-R/RW discs that were eventually developed contain a highly accurate spiral-shaped "pregroove" track that provides a guide for the recording laser to follow when writing data to an unrecorded CD-R/RW. The pregroove is not a perfect spiral, but is slightly "wobbled" at regular intervals. E.a. U.S. Patent No. 5,023,856 fig. 4a. The undulating wobble is used by the recorder as a clock signal to control the CDR/RVV's rotation speed, ensuring that the disc rotates at the correct velocity during recordihg.

During the course of developing the recordable compact disc standard, Philips and Sony engineers exchanged proposals concerning different ways of implementing particular product features. One such feature was the encoding of position data on the "blank" or unrecorded CD-R/RW disc. Sony and Philips found that it was necessary to develop means for a CD-R/RW recorder to determine where along the spiral pregroove track the recorder's laser was

positioned at any given time, or "absolute time" position data.[2]

After identifying the need for position data, Philips and Sony separately developed solutions that built upon the wobble signal on the compact discs that was already used to provide velocity control. Philips proposed an analog solution, encoding the absolute time position data by frequency modulating the wobble signal. In contrast, Sony proposed a digital modulation method to encode position data using the wobble signal. The analog Philips method, known as "Absolute Time in Pregroove" or "ATIP," was covered by the Raaymakers patents, while the digital Sony solution was covered by the Lagadec patent.[3] Although the two methods solve the same basic problem (the encoding of position data on recordable CDs using the existing wobbled pregroove, and doing so in a manner backwards-compatible with existing CD players), they are fundamentally incompatible, and there is no dispute that a disc made using one technological approach would not work in an CD recorder designed to read position data using the other.

Philips and Sony ultimately chose to define the Orange Book standard using the analog

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[2] Absolute time" refers to the fact that the laser's location is expressed in terms of the time required to scan the spiral groove from the start of the disc to the current position.

[3] Although the Lagadec patent primarily describes a digital solution, as will be seen, Claim 6 of that patent is arguably not limited to digital modulation.

Raaymakers ATIP approach, not the digital Lagadec method. Nevertheless, a license to the Lagadec patent was included along with the Raaymakers patents in the standard CD-RW joint license and perhaps in the CD-R joint license as well.[4] The joint licenses only allowed use of pool patents, including Lagadec, to produce Orange Book compliant discs. They did not allow use of Lagadec to produce a disc using the digital method for encoding position data taught by Lagadec.

On remand, the Commission did not hold hearings or remand to the All. It confined itself to new arguments before the full Commission concerning the previously unaddressed portion of the ALJ's initial decision. Princo advanced, inter alia, two misuse theories concerning the Lagadec patent. First, Princo pursued a tying theory, arguing that the Lagadec patent was not essential to the production of Orange Book compliant discs and was unlawfully tied to patents that were actually essential to the manufacture of Orange Book compact discs, including the Raaymakers patents. Second, Princo alleged that the Lagadec and Raaymakers patents covered potentially competing technologies, and that by agreeing with Sony that the Lagadec patent would not be available except through a package license that also included the Raaymakers patents, Philips engaged in a form of

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[4] The record on appeal is unclear as to whether the Lagadec patent was included in the standard CD-R joint license before 2001, when it was expressly listed by Philips in the package of "essential" CD-R patents.

price fixing, i.e., foreclosing potential competition between the technologies of the Lagadec and Raaymakers patents.[5]

On February 5, 2007, the Commission issued a final determination. Final Determination at 1. For the reasons discussed below, the Commission reversed the ALJ's previously unaddressed rulings that Philips committed patent misuse. Having determined that Princo's accused compact discs infringed the claims of the six patents asserted by Philips, that the asserted claims were enforceable and not invalid, and that the domestic industry requirement of section 337 was satisfied, the Commission issued remedial orders.

Princo timely appealed from the final determination of the Commission, and we have jurisdiction under 28 U.S.C. § 1295(a)(6).

DISCUSSION

Patent misuse is an equitable defense to patent infringement. It was designed "'to restrain practices that did not in themselves violate any law,

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[5] The Commission's independent Investigative Attorney ("IA"), whose role as defined in 19 C.F.R. § 210.3 is to "engage in investigatory activities in an investigation or a related proceeding," did not support any of Princo's per se misuse theories below. The IA agreed, however, that inclusion of Lagadec supported a finding of patent misuse under the rule of reason. The IA argued, inter alia, that "Philips included the Lagadec patent" to "secure[] Sony's adherence to the . . . Orange Book standard" and to "forestall competition from Sony." Final Determination at 96.

but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy." Philips I, 424 F.3d at 1184 (quoting Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 704 (Fed. Cir. 1992)). The key inquiry in determining whether a patentee's conduct constitutes misuse "'is whether, by imposing conditions that derive their force from the patent, the patentee has impermissibly broadened the scope of the patent grant with anticompetitive effect." Id. (quoting C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1372 (Fed. Cir. 1998)). Experience has taught that some practices, such as when a patentee having market power conditions a license upon the purchase of a separate, staple good, are sufficiently anticompetitive so as to warrant condemnation on their face. Va. Panel Corp. v. MAC Panel Co., 133 F.3d 860, 869 (Fed. Cir. 1997) (discussing examples of per se misuse).[6] Other allegedly-anticompetitive practices beyond the few specific practices identified by the courts as constituting misuse per se are evaluated under the rule of reason to determine whether they "impose[] an unreasonable restraint on competition." Id.; see also Philips I, 424 F.3d at 1185.

Against this background, Princo contends that the Commission erred by failing to find patent misuse by Philips either as a result of tying or as a

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[6] Congress has created a safe harbor in 35 U.S.C. § 271(d)(5) for certain types of conduct by patentees lacking market power. See III. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 41-42 (2008). In the present case, "the Commission found that Philips has market power in the relevant market and that section 271(d)(5) is therefore inapplicable." Philips I, 424 F.3d at 1186.

result of an agreement between Sony and Philips concerning the availability of the Lagadec patent. We address these arguments in turn.

I

A

Princo first argues that "Philips has engaged in patent misuse by tying the Lagadec patent to the essential Orange Book patents in a manner prohibited under Philips I." Appellants' Br. 48. Princo's primary contention is that through mandatory package licensing, Philips improperly used its market power to force manufacturers seeking patents essential to the production of Orange Book compliant discs to also take a license to Lagadec, an allegedly-nonessential Sony patent.

Tying arrangements have a long history in both the patent misuse and antitrust contexts. Much of the Supreme Court's early patent misuse doctrine was developed in cases involving a challenge to some form of tying arrangement. In Morton Salt Co. v. G.S. Suppicier Co., 314 U.S. 488, 490-91 (1942), for example, the Court held that a tying arrangement where the patent license was conditioned upon the purchase of a separate, staple product amounted to patent misuse, because in such a case "the patent is used as a means of restraining competition with the patentee's sale of an unpatented product." Id. at 493; see also III. Tool Works, 547 U.S. at 45-46 (holding that a patent alone does not confer market power necessary to show unlawful tying). Likewise, the early antitrust cases found that various tying arrangements violated the antitrust laws. See, e.g.,

N. Pac. Ry. Co. v. United States, 356 U.S. 1, 10-11 (1958); see also United States v. Loew's Inc., 371 U.S. 38, 44-45 (1962); United States v. Paramount Pictures, Inc., 334 U.S. 131, 156-59 (1948).

Although tying in many of its varied forms has potential to inflict anticompetitive harms, in more recent times it has been recognized that tying also has potential to create substantial procompetitive efficiencies. See, e.g., Ill. Tool Works, 547 U.S. at 36 ("The assumption that ?lying arrangements serve hardly any purpose beyond the suppression of competition,' rejected in [U.S. Steel Corp. v. Fortner Enters., Inc., 429 U.S. 610 (1977)], has not been endorsed in any opinion since."); Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 40-44 (1984) (O'Connor, J., concurring in judgment) ("Tie-ins may entail economic benefits as well as economic harms, and . . . these benefits should enter the rule-of-reason balance."); see also Herbert Hovenkamp, Mark. D. Janis & Mark A. Lemley, IP and Antitrust § 34.4, at 34-20.1 (2009) ("Typical procompetitive benefits [of patent pools] include the clearing of blocking positions, the advantages flowing from integration of complementary technologies, and the cost savings from avoiding litigation.").

In Philips I, we considered one particular form of patent-to-patent tying, where patents essential to the practice of a standardized technology (the Orange Book standard) were licensed together as a package. We concluded that "[i]n light of the efficiencies of package patent licensing and the important differences between product-to-patent tying arrangements and arrangements involving

group licensing of patents," Philips's practice of package licensing essential patents together could not be condemned as misuse per se but instead should be evaluated under the rule of reason. Philips I, 424 F.3d at 1193. As we explained, the group of patents essential to practice a particular technology or standard generally may be viewed as a unified product:

> If a patentholder has a package of patents, all of which are necessary to enable a licensee to practice particular technology, it is well established that the [patentholder] may lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products.

Id. at 1196; see Hovenkamp, Janis & Lemley, supra, § 22.3 at 22-13, 14. Inclusion in a package license of essential patents to enable the practice of the particular technology by clearing blocking positions is not tying of the type that patent misuse doctrine seeks to prevent. See Philips I, 424 F.3d at 1196; Intl Mfg. Co. v. Landon, Inc., 336 F.2d 723, 729 (9th Cir. 1964).

Moreover, we concluded that Philips's practice of offering essential patents as a package survived under the rule of reason. There, the allegation was that four Orange Book pool patents were not actually essential because alternative technologies existed that could be used in their place to produce Orange

Book compatible compact discs without infringing the four patents. Philips I, 424 F.3d at 1194-95. We rejected the argument that the four patents were not essential, as the record showed that those patents in fact had "no practical or realistic alternative." Id. at 1194, 1198. As a result, the tying of those four patents to so-called essential patents would have no anticompetitive effect "because no competition for a viable alternative product is foreclosed." Id. at 1194.

On remand, the Commission rejected Princo's Lagadec tying claim under the framework of Philips I, stating that "[Princo]'s argument is fundamentally flawed because the [Raaymakers] patents are inside, not outside, the package." Final Determination at 80. The Commission similarly rejected the IA's Lagadec tying claim, stating that "the premise of the IA's argument . . . that the Lagadec '565 patent cannot be used to make an Orange Book compliant CD, is fatal to his rule of reason tying claim." Id. at 94. Elsewhere in its opinion, the Commission declined to decide whether Lagadec was a blocking patent, i.e., a patent that covered the Orange Book standard and was therefore essential to the production of Orange Book compliant discs. Final Determination at 23.

On appeal, Princo contends that the Commission erred in rejecting its misuse claim under Philips I, arguing that the Lagadec patent is not an "essential patent" for purposes of the Orange Book standard. It maintains that requiring licensees to purchase Lagadec, a nonessential patent, in order to obtain licenses to truly essential patents therefore constitutes misuse. We need not parse the Commission's somewhat opaque decision as to the

tying claim for, like Philips, we believe that this issue can be resolved by focusing on the issue not decided by the Commission—namely, the scope of Claim 6 of the Lagadec patent.

Philips contends that Lagadec is essential as a blocking patent because at least one patent claim, Claim 6, reads on every Orange Book compliant disc. Claim 6 provides: "A disc-shaped recording medium . . . having formed thereon a substantially spiral pregroove which is wobbled . . . and formed by . . . a first signal . . . that has been modulated by a second signal . . . ." '565 Patent col.10 ll.14-24.[7] Philips maintains that Claim 6 is broadly written to cover recordable compact discs containing a wobbled

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[7] In full, Claim 6 of the Lagadec patent is as follows:

> 6. A disc-shaped recording medium capable of having a data signal optically recorded thereon and optically reproduced therefrom, said recording medium comprising:
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> a substrate layer having first and second surfaces, said first surface having formed thereon a substantially spiral pregroove which is wobbled in a radial direction of said disc-shaped recording medium and formed by a control signal consisting of a first signal that has a predetermined frequency and that has been modulated by a second signal that contains coded information and that has a frequency at least an order of magnitude lower than said predetermined frequency;
>
> a recording layer formed on the first surface of said substrate layer and adapted for subsequent optically recording the data signal thereon; and
>
> a protective layer formed on said recording layer.

'565 Patent col.10 ll.14-31.

pregroove formed by "a first signal . . . that has been modulated by a second signal that contains coded information," and does not require the use of any particular type of modulation (for example, digital modulation). '565 Patent co1.10 11.22-25. Although it acknowledges that Lagadec "generally teaches a digital method of encoding position data not used by the Orange Book," it contends that the specification cannot be used to read a "digital" limitation into Claim 6 where such a limitation is absent from the language of the claim. See Phillips v. AWH Corp., 415 F.3d 1303, 1323-24 (Fed. Cir. 2005) (en banc).

In contrast, Princo argues that Lagadec is not in fact a blocking patent because Claim 6 must be read in light of the specification, which discloses primarily a digital encoding scheme. Princo does not identify any individual claim limitation of Claim 6 that is absent from the Orange Book compact discs; rather, it argues that because the Lagadec specification must be understood as teaching away from analog methods, the patent must be read as claiming only a digital encoding scheme. Princo contends that Lagadec therefore is not an essential patent, because Claim 6 cannot be construed as blocking a recordable compact disc using the analog encoding method required by the Orange Book standard.

The Commission did not decide this question, nor do we need to do so. We conclude that Lagadec can qualify as an essential Orange Book patent if a license to practice Claim 6 of the Lagadec patent could be viewed as reasonably necessary to practice the Orange Book standard. We further conclude that

it would have been reasonable for a manufacturer to believe a license under Claim 6 was necessary at the time the licenses were executed.

Philips I recognized that patent pools could generate procompetitive efficiencies in the form of reduced transaction costs, reduced litigation expenses, and most importantly the overall "procompetitive effect of reducing the degree of uncertainty associated with investment decisions." Philips I, 424 F.3d at 1192-93. These efficiencies are not limited to situations in which a potential pool patent is, in fact, a blocking patent. As we noted in Philips I, one of the major potential efficiencies of package licensing in the context of innovative technology is the avoidance of "uncertainty that could only be resolved through expensive litigation." Id. at 1198; see also id. at 1192 ("Package licensing can also obviate any potential patent disputes . . . and thus reduce the likelihood that a licensee will find itself involved in costly litigation."). Prohibiting the inclusion in a package license of a patent that is arguably essential, merely because it ultimately proved not to be essential would undercut, even eliminate, this potential procompetitive efficiency.

We thus think that perfect certainty is not required to avoid a charge of misuse through unlawful tying. Rather, in this context a blocking patent is one that at the time of the license an objective manufacturer would believe reasonably might be necessary to practice the technology at issue. A leading treatise has made a similar observation in the context of patent pools and cross-licensing agreements:

> Indeed, even if the patents are only arguably conflicting, there are strong reasons to permit the settlement of patent disputes by means of a cross-licensing agreement. Not only will judicial economy be served and litigation costs reduced by settling such disputes, but the delay and uncertainty associated with blocking patent disputes may prevent either party from going forward with a commercial product for years while litigation is pending. Where two or more patents are arguably blocking, therefore, settling the dispute by means of cross-licensing is likely to be procompetitive.

Hovenkamp, Janis & Lemley, supra, § 3.3, at 3-36 (emphasis added); see also Roger B. Andewelt, Analysis of Patent Pools Under the Antitrust Laws, 53 Antitrust L.J. 611, 616 (1985) ("[T]he line between competitive patents and blocking or complementary patents is frequently very difficult to draw. Obtaining access to patents that appear competitive would provide assurance of access to the needed technology if a court later determines that the patents are blocking.").

Our understanding of the likely procompetitive benefits of package licensing patents which reasonably might be necessary to practice a given technology is further informed by industry practice in the analogous area of standards-setting organizations. Such organizations typically seek to

reduce the uncertainty involved in developing a technological standard by requiring of their members disclosure of patents that might cover aspects of the standard being developed, because "nondisclosure . . . could put the [patentee member] in a position in which it could literally block the use of the published [standard] by any company unless the company obtained a separate license from the [patentee]." Qualcomm Inc. v. Broadcomm Corp., 548 F.3d 1004, 1013 (Fed. Cir. 2008). The standard-setting industry organization in Qualcomm did not require its members to disclose only patents actually blocking practice of the standard, however; rather, members understood the duty to require disclosure of those patents that "reasonably might be necessary to practice the [standard]." Id. at 1018 (emphasis added); see also Rambus Inc. v. Infineon Techs. AG, 318 F.3d 1081, 1100 (Fed. Cir. 2003). In the package licensing context, it may be similarly the case that a given patent that appears to be necessary ultimately may prove not to be so. But including the patent within the package license nevertheless may be procompetitive; for example, doing so may beneficially avoid "continuing disputes over whether the licensee's technology infringes certain ancillary patents owned by the licensor that are not part of the group elected by the licensee." Philips I, 424 F.3d at 1198. Indeed, as with disclosure in the standard-setting context, a major goal of package licensing is this type of avoidance of uncertainty and costly litigation.

Here, we agree with Philips that inclusion of the Lagadec patent in the patent pool did not give rise to an illegal tying arrangement, because Claim 6

reasonably might be necessary as a blocking patent to the Orange Book standard.[8] Claim 6, on its face, would have presented an obvious source of concern for an Orange Book manufacturer. Princo does not appear to contend that a recordable disc produced according to Orange Book standards lacks "a substantially spiral pregroove which is wobbled in a radial direction of said disc-shaped recording medium," where that wobbled pregroove is "formed by a control signal consisting of a first signal that has a predetermined frequency and that has been modulated by a second signal that contains coded information." '565 Patent col.10 ll.23-28. As Philips points out, the Lagadec patent contains no express or indisputable disclaimer limiting the scope of the claims, and our attention is not drawn to any prosecution history that would support such a limitation. Princo contends only that the scope of the claim must be limited by the primarily digital disclosure of the patent's specification. A manufacturer evaluating the patent would thus be left gambling on the uncertain proposition of whether the specification was sufficiently narrow that Claim 6 would be correspondingly limited.

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[8] In its reply brief, Princo argues that because the Commission did not determine whether Lagadec is a blocking patent, we may not uphold its decision on this alternative legal ground. This argument misunderstands the holding of S.E.C. v. Chenery Corp., 318 U.S. 80, 87 (1943). The relevant facts concerning the underlying Orange Book technology are undisputed, and whether the patent claims could reasonably be construed to cover that technology is a legal matter well within the competence of an appellate tribunal to decide. See id. at 88.

This is especially true in light of the fact that the law of claim construction was unsettled in the late 1990s, when the licenses of which Princo complains were executed. See Philips I, 424 F.3d at 1198 (explaining that the propriety of a license generally must be evaluated as of the time when it is issued). While some cases at that time were perceived by litigants as suggesting, as Princo now argues, that broad claims might be limited to the disclosed embodiments,[9] other cases continued to caution against improperly importing limitations into otherwise broad claims.[10] Further, several of the core cases of our modern claim construction jurisprudence (including those clarifying the proper role of the specification in construing claim language) were relatively recent or had not yet been decided. E.g., Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Against this background, legitimate questions could have existed as to the scope of the Lagadec patent.

We thus conclude that Princo has failed to meet its burden of demonstrating that at the time the Lagadec patent was included in the package licenses, an objective manufacturer, faced with the patent and the plain language of Claim 6, would not have believed that a license reasonably might be

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[9] See, e.g., Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295 (Fed. Cir. 1999); Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377 (Fed. Cir. 1999)

[10] See, e.g., Comark Commc'ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998); Electro Med. Sys., S.A. v. Cooper Life Scis., Inc., 34 F.3d 1048, 1054 (Fed. Cir. 1994).

necessary to manufacture Orange Book compact discs. Lagadec qualified as an "essential" patent for purposes of the Orange Book pool. See Philips I, 424 F.3d at 1196. We affirm the Commission's determination that Princo's misuse claim based on tying is without merit.

B

In a related argument, Princo contends that Philips has violated the Supreme Court's teaching in Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 135 (1969), that "conditioning the grant of a patent license upon payment of royalties on products which do not use the teaching of the patent [is] misuse." In short, Princo contends Philips's licensing practice at issue violates Zenith because under the joint license royalties from the manufacture of compact discs are paid to Sony because of Lagadec even though "the Lagadec patent cannot be used in an Orange Book compliant disc." Appellants' Br. 43-45. Philips and the Commission reply that Princo has waived this per se misuse argument by failing to raise it below. However, even if we were to assume (without deciding) that Princo is correct about Zenith's scope and the argument was not waived—an assumption about which we have considerable doubt—Princo's argument is not persuasive. As previously discussed, at the time the package licenses at issue were executed it appeared that Lagadec reasonably might be necessary to manufacture Orange Book compact discs. Manufacturers taking a package license including Lagadec eliminated the uncertainty of potentially infringing Claim 6 of that patent when they

manufacture Orange Book compliant discs. Because the blocking aspect of the patent is, or reasonably might be, necessary to Orange Book manufacturers, it cannot fairly be said on these facts that a royalty is paid on products which do not use the teaching of the Lagadec patent.

II

In addition to challenging the practice of requiring manufacturers who sought licenses to essential Orange Book patents to also take a license to Lagadec, Princo challenges a second aspect of Philips's conduct involving Lagadec. Although Princo presents variations of its argument under different names, including price fixing, we understand the essence of its claim to be that, as discussed earlier, Lagadec represented an alternative technological solution to the Raaymakers patents with respect to encoding position data using the preexisting wobble signal. Princo argues that Philips and Sony agreed not to license Lagadec in a way that would allow a competitor "to develop, use or license the [Lagadec] technology to create a competing product." Appellants' Reply Br. 1; see also Intervenor's Br. 33-34 ("What Princo calls its principal price-fixing argument . . . thus really amounts to the accusation that Philips bribed Sony not to use . . . Lagadec to compete against the Orange Book."). Thus, Princo contends, even if Lagadec properly may be included in the package licenses, Philips committed patent misuse by agreeing with Sony to not license Lagadec in a manner allowing "the further development of the Lagadec technology and the possibility of competition

between that technology and its own [Raaymakers technology]." Appellants' Reply Br. 3.

The Commission rejected Princo's argument under both a per se analysis and under the rule of reason, relying in both cases on substantially the same reasoning. The Commission did not directly address whether there was an agreement to prevent Lagadec from being licensed as a competing technology, apparently concluding instead that no misuse could exist regardless of any such agreement:

> If Philips is correct that the Lagadec '565 patent is a "technically blocking patent," then no misuse flows from including the patent in the joint licenses. On the other hand, [if Lagadec is not blocking], we reject respondents' and the IA's various theories of patent misuse because there has been no showing that the Lagadec '565 patent competes with another patent in the pool [and] no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of the anti-competitive effect required under a rule of reason analysis.
>
> Notably, even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs.

> Consequently, the record in this investigation does not support a finding that the Lagadec '565 patent competes with the '825 or '856 patents.

Final Determination at 23-24 (footnote omitted); see id. at 80-81. We conclude that the Commission erred in holding that these grounds would be sufficient to defeat a claim of misuse even if such an agreement existed.[11]

The first ground relied upon by the Commission in rejecting Princo's argument was that if "the Lagadec '565 patent is a 'technically blocking patent,' then no misuse flows from including the patent in the joint licenses." Final Determination at 23. This conclusion rested on our statement in Philips I, 424 F.3d at 1196, that a patentee holding blocking patents may "lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products."

We believe, however, that the Commission read our decision in Philips I too broadly if it meant to suggest that Lagadec's status as a blocking patent could immunize an agreement not to compete. While our decision in Philips I confirmed that the package licensing of blocking patents is not patent misuse as a form of tying, we did not there consider whether an

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[11] Because we conclude that the licensing practice alleged by Princo would, if proven, violate the rule of reason, we need not determine whether it should be evaluated under a per se rule.

agreement that would prevent the development of alternatives would constitute misuse under a theory of elimination of competition or price fixing. That poses a different question, and not one foreclosed by our decision in Philips I.

Philips I involved a tying claim based on Philips's practice of requiring manufacturers to license four allegedly non-essential patents in order to obtain licenses to truly essential pool patents. The Commission had determined that the four allegedly-nonessential patents were separate products from the package of "essential" Orange Book patents, because the Orange Book features covered by those four patents could be achieved equally well through the use of alternative non-pool technologies not covered by those patents. Id. at 1194-96. Thus, the Commission reasoned, "the package licensing agreements adversely affected competition in the market for the nonessential technology," because no Orange Book disc manufacturer would have incentive to license and use any of the alternative technologies if they had already been forced to take a license to the equivalent pool patents as part of the package license. Id. at 1194 (describing findings).

On appeal, we determined that the Commission's findings were unsupported by substantial evidence, as the record did not actually show market foreclosure with regard to alternative technologies. The record did not show that "any commercially viable alternative actually existed" to the allegedly-nonessential patents. Id. at 1198. Any potential market foreclosure in that case was simply too speculative to support a finding of misuse, as "the

mere possibility that alternative technology might at some point become available is not sufficient to support a finding that at the time the Philips licenses were executed, there was actually a commercially available alternative to the technology." Id. at 1196. In contrast, the potential efficiencies we identified from packaging the patents at issue included the integration of complementary technologies, reduced transaction costs, reduced litigation expenses, and most importantly the overall "procompetitive effect of reducing the degree of uncertainty associated with investment decisions." Id. at 1192-93. Because the package licenses had significant potential to generate procompetitive efficiencies, and the risk of future anticompetitive harm was at best speculative, we concluded that the Commission's analysis finding the licensing agreements unlawful per se and under the rule of reason was in error.

Philips I thus foreclosed arguments that a patent is non-essential because of a supposed alternative where the claimed alternative is not commercially viable; market foreclosure in such a case is typically too speculative to justify a finding of misuse. See 424 F.3d 1194, 1198. But it is also clear that Philips I did not consider, let alone foreclose, arguments based on alleged agreements to prevent the development of a competing alternative technology. Notably, in Philips I, the pool did not include the allegedly competing alternatives to the four challenged pool patents. There was no agreement not to license those competing technologies, and no allegation that the package licenses directly restrained licensing of the

alternative technologies that disc manufacturers might desire to use in place of pool technology. Rather, the market remained free to develop such alternative technologies.

In contrast, here Princo contends that Philips and Sony agreed from the outset to license Lagadec, a potential competitor to the Raaymakers pool patents, in a way that would necessarily prevent it from ever becoming a commercially viable alternative technology that might compete with the Orange Book standard. The essential nature of the Lagadec patent to the Orange Book standard cannot justify the refusal to allow it to be licensed for non-Orange Book purposes. It is one thing to offer a pooled license to competing technologies;[12] it is quite another to refuse to license the competing technologies on any other basis. In contrast to tying arrangements, there are no benefits to be obtained from an agreement between patent holders to forego separate licensing of competing technologies, as counsel for Philips conceded at oral argument. Oral Arg. 26:10-26:25, available at http://oralarguments.cafc.uscourts.gov/mp3/2007138 6.mp3 (Oct. 6, 2008).

Agreements between competitors not to compete are classic antitrust violations. See, e.g.,

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[12] As noted by Philips, even when blocking patents are not involved, pooling may in some cases have procompetitive benefits, such as enabling licensees to obtain access to alternative technologies through one negotiation without determining at the outset which technology is the most efficient. Intervenor's Br. 36-37 (citing Andewelt, supra, at 616).

Palmer v. BRG of Ga., Inc., 498 U.S. 46, 49 (1990); Otter Tail Power Co. v. United States, 410 U.S. 366, 377 (1973); United States v. Topco Assocs., Inc., 405 U.S. 596, 608 (1972). Agreements preventing patent licensing of competing technologies also can constitute such violations. Standard Oil Co., Ind. v. United States, 283 U.S. 163, 174 (1931) ("Where domination exists, a pooling of competing process patents . . . is beyond the privileges conferred by the patents and constitutes a violation of the Sherman Act."); id. at 175 ("In the case at bar, the primary defendants own competing patented processes for manufacturing an unpatented product . . .; and agreements concerning such processes are likely to engender the evils to which the Sherman Act was directed."); United States v. New Wrinkle, Inc., 342 U.S. 371, 380 (1952) ("An arrangement was made between patent holders to pool their [competing] patents and fix prices on the products for themselves and their licensees. The purpose and result plainly violate the Sherman Act."); cf. U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 5.1 ex. 9 (Apr. 6, 1995) ("In the absence of evidence establishing efficiency-enhancing integration from the joint assignment of patent rights, the Agency may conclude that the joint marketing of competing patent rights constitutes horizontal price fixing and could be challenged as a per se unlawful horizontal restraint of trade."). Such agreements are not within the rights granted to a patent holder.

Second, the Commission rejected the misuse defense on the ground that there has been "no showing that the pool licensors [Sony and Philips]

would have competed in the technology licensing market absent the pooling arrangement." Final Determination at 23-24, 96. Treating this argument as "viewing the licensing arrangement as tantamount to a merger that eliminates Sony as a potential competitor," the Commission found no harm to future competition because there had been no showing that Sony "would probably have entered the market within a reasonable period of time" and "would have entered and survived to become a significant competitive force." Id. at 97-98.

The analogy of a merger of two companies offered by Philips and accepted by the Commission is not an accurate one. The Commission found that there had been no showing, as might be necessary in the case of a challenged merger, that Sony and Philips "would have competed in the technology licensing market" absent the pooling arrangement or that a standard based on Lagadec would have entered the market soon and survived to become a competitive force. Final Determination at 26, 98 (citing 5 Phillip E. Areeda & Herbert Hovencamp, Antitrust Law ¶ 1121b at 53, ¶ 1128a at 94 (2d ed. 2003)). But unlike the alleged agreement not to compete at issue here, a merger of two companies has potential countervailing efficiencies that offset potential harms to future competition. For example, mergers have the potential to create socially desirable resource savings through improved economies of scale and improved allocation of capital, to name just a few. See 5 Areeda & Hovenkamp, supra, TT 1103-1107 at 12-49. In contrast, an agreement of the sort alleged by Princo is unlikely to have any efficiencies that could not be achieved

equally well through a non-exclusive agreement that would have left open the possibility that the Lagadec technology could have been further developed. Indeed, as noted earlier, at oral argument counsel for Philips was able to identify no efficiencies flowing from such an agreement.

Third, the Commission rejected Princo's misuse argument on the ground that "even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs." Final Determination at 24. The Commission's analysis was flawed in this respect as well.

While the Commission's observation that the Lagadec patent could not be used in place of the Raaymakers patents to manufacture Orange Book CD-R/RWs is supported by substantial evidence, that observation is irrelevant. The very thrust of Princo's misuse argument is that the alleged agreement to offer Lagadec only through the joint licenses harms competition because Lagadec is non-Orange Book technology and could have been a competitive alternative to Orange Book technology. Thus, the fact that Lagadec is not an "Orange Book compliant" substitute for the Raaymakers ATIP technology does not answer Princo's defense of misuse.

Directing this court's attention to footnote 20 of the Commission's determination, Philips argues that the Commission correctly rejected Princo's argument on the basis that there had been no showing that the Lagadec was in fact a "commercially viable" technology. Final

Determination at 24 n.20. The Commission's footnote, however, must be understood within the context of the surrounding text, which focuses on whether Lagadec was a commercially viable technology for purposes of the Orange Book:

> "[T]tle Lagadec '565 patent constitutes completely different technology that does not work well according to the Orange Book Standards. This testimony renders Lagadec extraneous to the Orange Book." . . . [fn19]
>
> > [fn19] The ALJ credited testimony that the Lagadec approach is prone to errors and "did not provide a scheme that would work and was reliable."
>
> The All concluded that "Lagadec constitutes, at best, a substitute technology for the ATIP standard, and at worst, an extraneous, nonworking add-on to the patent pool." Notably, even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CDR/RW discs. [fn20]
>
> > [fn20] Respondents have pointed to no evidence that the Lagadec approach is a commercially viable technological alternative to the technology of Philips' 825 or '856

> patents. Moreover, the commercial viability of a method that is prone to errors, unreliable, and unworkable is doubtful.

Final Determination at 23-24 (emphases altered, internal citations omitted). [13] The Commission did not determine that Lagadec was fundamentally incapable of being commercialized as part of an alternative standard, but merely that it was not workable within the context of existing Orange Book technology. The Commission's determination thus does not include findings of fact directed to the question of whether, absent agreement to the contrary, Lagadec could have been developed as part of an alternative technological platform.

To the extent that Philips contends that the Lagadec technology must already have been developed to the point of commercial viability before misuse could be found, it is incorrect. See Intervenor's Br. 36 (noting that no evidence showed that Lagadec "was" a commercially viable alternative and therefore "an actual" competitor). The thrust of Princo's argument is that by agreement Lagadec was

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[13] The Commission based its statement that Lagadec's commercial potential was "doubtful" on the testimony of a Philips expert that the Lagadec method was "prone to errors," "unreliable," and "unworkable." Final Determination at 24 n.20. These statements, however, appear to have been volunteered by the expert during testimony related to the validity of the Raaymakers '825 and '856 patents, not in the context of whether Lagadec could have been a competitive alternative to the Orange Book technologies.

effectively suppressed; the result of that suppression was that the technology could not become a viable competitor. It cannot be the case that horizontal competitors can insulate themselves from misuse liability simply by agreeing to suppress competing technologies before they are fully developed. If that were the rule, then patentees engaging in such suppression of potential alternative technologies could never be called to account. In short, because standardization of technology and the development of patent pools are likely to occur early in the development of a given technology market, requiring stringent proof of the destruction of future competition, with its accompanying imponderables, would effectively immunize from misuse manufacturers who agree to suppress competition from alternative technologies.

In determining the appropriate standard under the rule of reason, it is important to bear in mind several pertinent considerations. First, the fact that a patent's disclosed embodiments may not be commercially viable cannot be dispositive. Technology disclosed in a patent typically needs to be further developed before a viable commercial embodiment is possible. Indeed, our cases have recognized that one way the patent laws encourage the development of new products is by securing an inventor's rights during the time between patenting of an immature technology and commercialization. Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1547 (1995) (en banc) ("The patent laws promote the progress in different ways, prominent among which are by protecting the investment of capital in the development and working of a new invention from

ruinous competition till the investment becomes remunerative." (quotation marks omitted)). The efforts required to commercialize an invention disclosed by a patent can be considerable. For example, in CFMT, Inc. v. Yieldup International Corp., 349 F.3d 1333, 1338 (Fed. Cir. 2003), we noted that the invention, while enabled by the issued patent, nevertheless required "hundreds of modifications" and months of experimentation by the inventors to achieve a suitable commercial implementation. In doing so, we observed that issuance of a patent "does not require an inventor to meet lofty standards for success in the commercial marketplace." Id. at 1338.

Second, it may be difficult to show that the patented technology would or would not be commercially viable in the absence of market incentives to commercialize the technology.

Third, even a faulty technology may provide some meaningful competition. As a leading commentator has suggested in the analogous context of Section 2 of the Sherman Act:

> Even the acquisition of one out of several equivalent patents might have exclusionary effects. The acquired patent might, with further advances in the art, turn out to have been the most promising. . . . Further, the inquiry [into whether a given patent is superior or inferior] is rarely worthwhile, for even inferior technologies can provide some,

> even if not perfect, competition to the patentee.

3 Areeda & Hovenkamp, supra, ¶ 707d at 203-04.

Fourth, as discussed above, there are no benefits to be achieved from suppression of potentially competing technology, suggesting that there would be no harm to competition from adopting a protective rule.

While we reject the suggestion that a showing of misuse in these circumstances requires proof that an allegedly-suppressed technology was already commercially viable, the question remains as to what showing must be made to invoke the patent misuse defense. On the one hand, evidence that a suppressed technology would have been viable would be sufficient; on the other, proof that a suppressed technology could not have been viable would be sufficient to negate a charge of misuse. We need not determine at this time where on the continuum between "certainly would have been viable" and "certainly could not have been viable" the appropriate standard lies. We leave that issue for consideration in the first instance by the Commission, together with the question of whether the evidence here satisfies the standard.[14]

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[14] The record appears to contain competing evidence as to Lagadec's potential. On the one hand, both the Commission and Philips recognize that Lagadec provided an alternative to the Orange Book method. See Final Determination at 24 ("Lagadec constitutes, at best, a substitute technology. . . ."); Intervenor's Br. 35 (noting that Princo had "point[ed] to evidence suggesting

III

We turn then to the final question—whether there was in fact an agreement between Philips and Sony to prevent the licensing of Lagadec as a competitor to the Orange Book. Philips maintains that Princo has made no showing that Sony agreed with Philips that Lagadec would be unavailable. The Commission did not reach this issue in rejecting Princo's argument. Final Decision at 23-26, 80-81, 96-98. There is sufficient evidence supporting Princo's theory that we conclude that further Commission proceedings are necessary.

First, it is undisputed that the Orange Book joint licenses that included Lagadec only permitted the use of the Lagadec license to produce Orange Book compliant discs. As the ALJ noted, "All of Philips' CD-R and CD-RW licenses contain a field of

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that the digital modulation method taught by the Lagadec patent was a technological alternative to the analog method of the [Raaymakers] patents"). On the other, Philips's witness suggested that commercial development might be difficult. However, the record contains a 1986 Sony memorandum describing the Lagadec proposal that suggests potential solutions existed to some of the problems identified by Philips's expert even at that early date. For example, the expert stated that the Lagadec encoding method would cause unwanted interference at the low and high ends of the frequency spectrum. The memorandum indicates that interference caused by the Lagadec method at high frequencies could be reduced by "simple audio oversampling" and that interference at low frequencies could be reduced with "[a] simple digital highpass filter." The patent as issued reflects these solutions. E.g. '565 Patent col.6 11.47-52; id. col.7 11.54-58 (discussing band-limitation to eliminate disturbance at high and low frequencies).

use provision limiting the license grant to use of the patents to manufacture . . . discs that comply with either the CD-R or CD-RW 'Standard Specifications.'" Initial Determination at 370. The licenses did not allow the use of Lagadec to produce discs competitive with the Orange Book standard.

Second, there is evidence that could support a finding that Sony granted Philips an exclusive license to Lagadec for CD-R purposes, and that Philips agreed not to license the patent (absent "exceptional" circumstances) except for the manufacture of Orange Book compliant discs.

The parties appear to agree that a 1993 agreement between Philips and Sony "granted exclusive right[s] to license Sony's CD-R patents for purposes of manufacturing CD-R discs and recorders." Intervenor's Br. 40 n.17; see also id. at 36 n.13. While it may be that the 1993 agreement did not initially list Lagadec as an included patent, that agreement was not limited to listed patents. It stated that it pertained to "Patent Rights . . . including but not limited to" the listed patents. J.A. 3319. The parties appear to differ as to whether Lagadec was subject to the 1993 agreement before 2001. Princo points to evidence that Lagadec was, in fact, licensed by Philips for CD-R purposes before 2001. See J.A. 3506, 3532 (1999 CD-R joint license and accompanying exhibit of patents listing Lagadec). It is also unclear whether the 1993 agreement was extended to cover Sony's patents for purposes of CD-RW licensing before a separate agreement to that effect was executed in 2000, though Philips admits that it somehow had the authority to license Lagadec

for CD-RW purposes before that time. Intervenor's Br. 12; J.A. 3534, 3561 (1999 CD-RW joint license and accompanying exhibit of patents listing Lagadec).

There is also a question as to how to interpret the 1993 agreement. Princo contends that in the agreement Philips agreed not to license Sony patents for non-Orange Book purposes absent "exceptional" circumstances. Appellants' Reply Br. 12-13. Princo urges that the evidence shows that Philips did not, in fact, license Sony patents for any other purposes, again supporting an inference that it agreed not to do so.[15]

The 1993 agreement gave Philips an "exclusive right to license such Patent Rights . . . for use in Articles listed in Appendix 2." J.A. 3319. Appendix 2 lists "CD-WO" (i.e., CD-R) "Disc" and "Recorder." J.A. 3321. The agreement is unclear as to whether Appendix 2 is referring only to Orange Book compliant products. Other portions of the 1993 agreement, however, arguably tend to suggest both that the license was broader than for Orange Book uses and that Philips was to license for non-Orange Book purposes only in "exceptional" circumstances. That agreement went on to state that "it is expressly

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[15] Princo points out that when asked if he was "aware of any separate license agreements between a licensee and Philips whereby only certain patents that are identified in the CD-R disc license were licensed," a Philips witness testified "I'm not aware of any such license agreements." J.A. 1934. Such "business behavior is admissible circumstantial evidence from which the fact finder may infer agreement." Theatre Enters., Inc. v. Paramount Film Distrib. Corp., 346 U.S. 537, 541 (1954).

understood . . . that in licensing . . . any Patent Rights relative to Articles . . . both our companies shall give at all times due regard to our joint efforts to promote the standardization of optical recording and retrieval systems." J.A. 3320. It further noted that "we confirm with respect to the aforementioned Patent Rights . . . that we will license such Patent Rights outside the jointly agreed upon system standards only in cases which can reasonably be considered exceptional." Id.

Third, there is evidence that, if the 1993 agreement applied to Lagadec, Sony itself may have agreed with Philips not to license the Lagadec patent for non-Orange Book purposes. Again the agreement stated "we confirm with respect to the aforementioned Patent Rights on joint inventions that we will license such Patent Rights outside the jointly agreed upon system standards only in cases which can reasonably be considered exceptional." J.A. 3320. There is a question as to whether the word "we" refers only to Philips, or to Sony as well. Again, we think the agreement is unclear, and on remand the Commission should consider its proper interpretation.

The portions of the record before us in the joint appendix are thus unclear as to whether the 1993 agreement became applicable to Lagadec, whether Philips received an exclusive license to Lagadec for all purposes, and whether Philips and Sony agreed generally not to license Lagadec outside the Orange Book standard. On remand, the Commission should determine which interpretation

is correct, taking into account any other relevant evidence pertinent to the agreement above.

In summary, the Commission did not determine whether the parties agreed not to license Lagadec outside the Orange Book context. Because we lack the Commission's familiarity with the full record, a remand is appropriate so that the factfinder may make that determination in the first instance. In doing so, we emphasize that the burden of proving misuse, and the corresponding risk of having made an insufficient record, lies with Princo. If the Commission determines on remand that the record contains insufficient evidence to justify a finding that Sony and Philips agreed that Lagadec would not be licensed as competitive technology, then there would be no misuse under Princo's theory.

CONCLUSION

In summary, we affirm the Commission's determination that Princo failed to meet its burden of demonstrating that Philips's patents are unenforceable due to patent misuse on the grounds of unlawful tying.

However, we conclude that the Commission's analysis of the agreement issue was predicated on legal errors in several respects, and that the Commission erred in failing to determine whether Princo established that such an agreement existed. We vacate and remand for the limited purposes of determining (1) whether Lagadec was a potentially workable alternative to the Orange Book technology and (2) whether Princo has established that Sony and Philips agreed that Lagadec would not be

licensed in a manner allowing its development as competitive technology.

AFFIRMED-IN-PART, VACATED-IN-PART, and REMANDED

COSTS

No costs.

United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

On Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

BRYSON, Circuit Judge, concurring in the result in part and dissenting in part.

I would affirm the Commission's final determination and would not remand for further findings.

1. The majority rejects Princo's tying claim on a ground not adopted by the Commission, concluding that the Commission's decision on that issue is

"somewhat opaque." I find the Commission's decision on that issue to be both clear and sufficient to reject Princo's argument of patent misuse based on tying. I agree, however, that the majority's ground for decision is also correct and offers a satisfactory alternative rationale for affirming the Commission's determination on that issue.

The tying argument is based on the contention that the Lagadec patent is not among those "essential" to the manufacture of an Orange Book compliant disc. Tying that non-essential patent to the package of essential Orange Book patents, according to the argument, was anticompetitive and unjustified, and thus constituted patent misuse.

As the Commission explained, the premise of that argument—that the Lagadec patent cannot be used to make an Orange Book compliant disc—is fatal to the tying claim. That is because prospective manufacturers of Orange Book compliant discs would be interested in obtaining a license for the essential patents in the patent pool; they would not be interested in a patent that could not be used to make an Orange Book compliant disc. For that reason, the requirement that purchasers take a license to a pool of patents that included the Lagadec patent could not have adversely affected competition, because at most the licensees were required to accept something they did not want and would not have tried to obtain by other means and from other sellers. See Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16 (1984) ("When a purchaser is 'forced' to buy a product he would not have otherwise bought even from another seller in the tied product market,

there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed.").

Princo seeks to dress up its tying claim by referring to Philips's conduct as "sequestering substitute patents within a pool." But the tying of the Lagadec patent to the other patents in the pool, without more, cannot in any reasonable sense be characterized as "sequestering." Princo's real argument on this point, made elsewhere in its brief, is that the Lagadec patent "couldn't be used and that some of the pool cost, must be attributed to its inclusion." That argument, however, is contrary to the Commission's findings and to simple economic analysis. As the Commission found, if the Lagadec patent, as Princo asserts, could not be used to make Orange Book compliant discs, there is no economic reason to conclude that the price of a license to the Orange Book pool of patents would be lower if the Lagadec patent were excluded. The licensees were interested in producing discs, not in counting the number of patents covered by the license. The Commission explained that the profit-maximizing price for the license would be the same regardless of whether it included no unwanted patents or dozens of them, as long as it contained all the patents needed to make Orange Book compliant discs.

2. That reasoning likewise disposes of Princo's argument that Philips has engaged in conduct that constitutes unlawful tying under the Supreme Court's decision in Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100 (1969). Once again, I

agree that the majority's ground for deciding this issue is valid, but it is unnecessary to invoke that ground of decision because this case plainly does not involve unlawful tying under the Zenith standard.[1] In Zenith, the Supreme Court found misuse where a patent holder licensed a package of some 500 patents involving radio and television technologies and set royalties based on the licensees' total radio and television sales—even if some of those sales were of products that used none of the licensed patents. Id. at 134-35. Here, in contrast, it is undisputed that many of the patents included in the joint license are necessary to manufacture Orange Book compliant discs, and the licensees were obligated to pay royalties only on discs that used at least one patent in the package. That difference is a significant one because, as discussed above, as long as some of the patents included in the license are used to manufacture Orange Book compliant discs (and all such necessary patents are included in the license), then the price of the license does not depend on whether the package also includes unwanted patents. Unlike in Zenith, Philips was not using the leverage of the Orange Book licenses to increase revenues unrelated to its patent rights, such as by "garner[ing] as royalties a percentage share of the licensee's

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[1] The parties spend some time debating whether Princo has waived this argument. The Commission and the intervenor contend that the "Zenith" argument has been waived because neither Princo nor the Investigative Attorney argued that the tying arrangement in this case constituted per se patent misuse. Because the Supreme Court's analysis in Zenith is inapplicable here in any event, I agree with the majority that it is unnecessary to resolve the waiver question.

receipts from sales of other products." Zenith, 395 U.S. at 135.

3. As for Princo's argument that Philips committed patent misuse by "conspiring to include in a mandatory patent pool their competing patents and thereby engag[ing] in prohibited price fixing," the majority holds that the Commission's decision on that issue cannot be sustained and that the case must be remanded to the Commission for further proceedings. I disagree. In my view, the Commission's findings of fact and legal conclusions provide a sufficient ground for upholding the Commission's ruling that Princo has failed to satisfy its burden of showing patent misuse through a horizontal price-fixing agreement.

Princo begins by attacking the Commission's finding that there is no evidence that the patents in the joint package licenses "cover technologies that are close substitutes." Princo contends that the evidence shows that the Lagadec patent and the Raaymakers patents "are substitutes for one another," and that the "Commission's conclusion that there has been no showing that the Lagadec patent was a potential competitor of the Philips Raaymakers patents or that Sony and Philips acted with the purpose of avoiding potential competition with each other" is unsupported by substantial evidence.

The Commission found that the evidence failed to show that the Lagadec and Raaymakers technologies were substitutable. In particular, the Commission stated that the respondents "have not identified, nor are we aware of, evidence in the

record that the patents in the joint package licenses 'cover technologies that are close substitutes.'" Final Determination 22 (citing U.S. Dep't of Justice & FTC, Antitrust Guidelines for the Licensing of Intellectual Property § 5.1 (1995)). For that reason, the Commission concluded, the joint package licenses "have not been shown to be 'the joint marketing of competing patent rights.'" Id. (emphasis in original). Because "the patents have not been shown to be competing," the Commission ruled, the pool royalty rate set by Philips and its co-licensors was not "a pricing agreement between competing entities with respect to their competing products." Id. (citing Texaco, Inc. v. Dagher, 547 U.S. 1, 6 (2006)).

There is no force to Princo's contention that the Commission's finding on that issue is unsupported by substantial evidence. Because the Commission found that no evidence was introduced on that issue, it fell to Princo on appeal to point to the evidence that would support its contention that the Lagadec patent was a viable potential competitor for the Raaymakers patents. It has not done so. Instead, Princo has relied entirely on an inference that the Lagadec patent must have been a potential competitor for Philips's Orange Book patents because otherwise Philips would not have allowed Sony to share in the patent pool licensing royalties. Princo contends that the agreement can be explained only as a naked conspiracy to suppress competition or, as Princo puts it, that "Sony was paid not to compete" with Philips. Not only does that argument not constitute evidence of the viability of the Lagadec technology as a potential basis for a system that would compete with the Orange Book system, but it

ignores ample record evidence of other reasons that Sony shared in the royalties from the Orange Book licensing agreements.

The Commission rejected, as unsupported by the evidence, the argument made by the Investigative Attorney that "Philips included Sony in the pool not because Sony brought anything necessary to CD-R/RW technology, but rather because Sony is a major player in the industry, whose cooperation Philips wanted." See Final Determination 97 & n.63. The Commission likewise rejected as unsupported the administrative law judge's remark that the inclusion of Lagadec in the patent pool "appears to be an attempt to forestall digital approaches to achieving what the Philips analog technology has achieved." Final Determination 23 n.18.

Not only was there no evidence to support those assertions, but the evidence affirmatively showed that there were other reasons for Sony's receiving a share of the royalties of the Orange Book patent pool, including the evidence that Sony had contributed substantial resources to the project to develop the Orange Book standard, and that the royalty division reflected a rough assessment of the value of each party's portfolio of worldwide patent rights. Because Princo did not persuade the Commission that those justifications for Sony's royalty share in the proceeds of the licensing pool were pretextual, the Commission properly rejected Princo's argument that the only possible reason for Sony's receiving a portion of the proceeds of th

agreement is that it had engaged in a horizontal agreement with Philips to fix prices.

Significantly, the Commission's finding regarding the potential for the Lagadec technology to generate a competing system was not limited to the state of the technology at the time the patent pool was put into place. The Commission found that no evidence had been introduced suggesting that there was any prospect of competition between the Lagadec patent and other patents in the pool. As the Commission put it, "there has been no showing that the Lagadec '565 patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of anti-competitive effect" from the inclusion of the Lagadec patent in the patent pool. Final Determination 23; see also id. at 26 (Princo has "not pointed to evidence that establishes that, absent the pooling arrangements, the pool licenses would have competed in the technology licensing market"). The Commission noted that the administrative law judge had credited testimony that the Lagadec approach "is prone to errors and 'did not provide a scheme that would work and was reliable." Id. at 24 n.19.[2]

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[2] The majority asserts that the Commission "did not determine that Lagadec was fundamentally incapable of being commercialized as part of an alternative standard, but merely that it was not workable within the context of existing Orange Book technology." I do not interpret the Commission's statements to be so limited. The expert who testified that the Lagadec approach was "prone to errors" (and whose testimony was credited by the administrative law judge) identified several problems with Lagadec's approach that were not restricted to

Because "there has been no showing that the patents in the pool are substitutable," the Commission concluded, "the agreement between the licensors to set a fixed royalty for the joint licenses under the pool is not price fixing per se in the market for licensing CD-R/RW patents." Final Determination 26.

Although the majority suggests that Philips contended that the Lagadec technology "must already have been developed to the point of commercial viability before misuse could be found," I read the Commission's observations about the absence of evidence of substitutability to apply not only to the present but to the future as well. To the extent that the Commission did not deal in detail with the question whether there was a realistic possibility that the Lagadec technology could have been developed into a viable competing system, the

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the viability of Lagadec as a component of the Orange Book platform. For example, the expert noted that "from basic physics, you can just see that [Lagadec's approach] is not a good solution, and it really wouldn't work well." Thus, while the Commission noted that Lagadec "does not work well according to the Orange Book standards," it added, separately, that Princo had "pointed to no evidence that the Lagadec approach is a commercially viable technological alternative to the technology of Philips's '825 or '856 patents," and that "the commercial viability of a method that is prone to errors, unreliable, and unworkable is doubtful." Final Determination 24 n.20. Moreover, the burden was on Princo to show that pool licensors would have competed in the technology licensing market, and the Commission found that Princo did not point to any evidence that Lagadec represented a commercially viable approach, either inside or outside the context of the Orange Book standards.

fault for any such shortfall rests with Princo, which did not offer any evidence, or even argument, to that effect.

Princo was free to offer evidence that Lagadec was substitutable technology and that there was a realistic prospect that the invention of Lagadec could be refined in the future to the point that it could be used as a platform for technology that would compete with the technology used in the Orange Book compliant discs. But Princo did not offer any such evidence. The Commission did not require a showing that Lagadec could have been used without further development to create a commercially successful technology. To the contrary, even though Princo did not point to any evidence of a realistic possibility that the Lagadec invention could be developed into competing technology in the foreseeable future, the Commission's analysis encompassed the possibility of future developments. Nonetheless, the Commission found no evidence that Lagadec would have been likely to lead to competing technology but for the pooling arrangements. Princo failed to show a likelihood that the digital method of encoding position data recited in the Lagadec patent would lead to the development of discs that would use that technology instead of the Orange Book analog method of encoding position data, and that the digital encoding technology would be used in discs and disc readers that would compete with Orange Book compatible systems. As the Commission explained, unless the competing technology would have entered the market "to become a significant competitive force," it could not have augmented future competition in an important way. Yet the

Commission found that the record contained no evidence that Sony would have entered the market and become a significant competitive force. Final Determination 98. Moreover, Princo offered no evidence that any potential licensee ever expressed an interest in licensing Lagadec for use in technology that would compete with the Orange Book compliant discs. Any suggestion that the Lagadec patent could have provided the basis for a competing system is thus entirely speculative and unsupported by argument or evidence before the Commission. Finally, the majority's conclusion with respect to Princo's tying argument (with which I agree), that "Lagadec qualified as an 'essential' patent for purposes of the Orange Book pool," undermines Princo's price-fixing argument. Princo sets forth the legal rule that it contends governs this case: "the pooling of non-blocking, substitute patents [is] universally recognized as highly anticompetitive" and is unlawful. If the Lagadec patent is an "essential," or "blocking" patent, that rule by its own terms does not apply. The majority's conclusion that the Lagadec patent was "essential" because claim 6 of that patent "reasonably might be necessary as a blocking patent to the Orange Book standard" thus takes this case outside of the legal rule on which Princo relies. See Standard Oil Co. v. United States, 283 U.S. 163, 171 & n.5 (1931) (recognizing that the pooling of blocking patents serves a legitimate purpose); Dep't of Justice & FTC, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5, ex. 10 (1995) (noting that where manufacturers pool blocking patents, "the manufacturers are not in a horizontal relationship with respect to those patents").

Although the majority correctly notes that the Commission did not address the question whether Philips and Sony agreed not to license Lagadec as a competitor to the Orange Book, it is not clear that Princo squarely presented that argument to the Commission. In its briefing before the Commission, Princo argued that Orange Book licensees were not permitted to use the package patents for products outside the scope of the Orange Book, but it did not point to evidence that Sony was precluded from licensing Lagadec for non-Orange-Book uses. In any event, Princo still needed to show that any agreement not to allow Lagadec to be licensed outside the Orange Book would have had some anticompetitive effect in order for the agreement to constitute a form of horizontal price fixing. The Commission's finding that Princo failed to demonstrate that absent the patent pool agreement Sony would have competed with the Orange Book technology—either directly or by licensing the Lagadec patent—was sufficient to support the Commission's conclusion that the patent pool was not shown to have any such anticompetitive effect.

I would therefore affirm the Commission's final determination.

APPENDIX C

Public Version

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	
CERTAIN RECORDABLE COMPACT DISCS AND REWRITABLE COMPACT DISCS	**Inv. No. 337-TA-474**

COMMISSION OPINION

On September 21, 2005, the United States Court of Appeals for the Federal Circuit ("the Federal Circuit") reversed the Commission's final determination of no violation of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) ("section 337") in *Certain Recordable Compact Discs and Rewritable Compact Discs*, Inv. No. 337-TA-474, and remanded the case for further proceedings consistent with the Court's opinion. *U.S. Philips Corp. v. U.S. Int'l Trade Comm'n*, 424 F.3d 1179 (Fed. Cir. 2005). The Court's

mandate issued on December 27, 2005, returning jurisdiction over this investigation to the Commission. On remand, the Commission has determined that complainant has shown the existence of a violation of section 337. The Commission has also determined to issue a general exclusion order and cease and desist orders.

PROCEDURAL BACKGROUND

The Commission instituted this investigation on July 26, 2002, based on a complaint filed by U.S. Philips Corporation of Tarrytown, New York ("Philips"). 67 *Fed. Reg.* 48,948 (2002). The complaint, as supplemented, alleged violations of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain recordable compact discs and rewritable compact discs by reason of infringement of certain claims of six U.S. patents, *viz.*, claims 1 and 5–6 of U.S. Patent No. 4,807,209 ("the '209 patent"); claim 11 of U.S. Patent No. 4,962,493 ("the '493 patent"); claims 1–3 of U.S. Patent No. 4,972,401 ("the '401 patent"); claims 1 and 3–4 of U.S. Patent No. 5,023,856 ("the '85 patent"); claims 1–6 of U.S. Patent No. 4,999,825 ("the '825 patent"); and claims 20 and 23–34 of U.S. Patent No. 5,418,764 ("the '764 patent"). *Id.*

The notice of investigation named 19 respondents, including Gigastorage Corporation Taiwan of Hsinchu, Taiwan; Gigastorage Corporation USA of Livermore, California (collectively, "Gigastorage"); Linberg Enerprise Inc. ("Linberg") of West Orange, New Jersey; and DiscsDirect.Com of Campbell, California. 67 *Fed. Reg.*

48,948 (2002). On August 14, 2002, the presiding administrative law judge ("ALJ") issued an initial determination (ALJ Order No. 2) granting a motion to intervene as respondents by Princo Corporation of Hsin-Chu, Taiwan, and Princo America Corporation of Fremont, California (collectively, "Princo"). The Commission determined not to review Order No. 2.

On October 24, 2003, the ALJ issued his final initial determination ("ID") of no violation of section 337. When the ID issued, Gigastorage, Linberg, and Princo (collectively, "respondents") were the only remaining active respondents in the investigation. *See* ALJ Order No. 6 (an unreviewed initial determination terminating eight respondents on the basis of a consent order); ALJ Order No. 17 (an unreviewed initial determination terminating each of three respondents on the basis of a consent order and settlement agreement); ALJ Order No. 18 (an unreviewed initial determination terminating one respondent on the basis of a consent order and settlement agreement); and ALJ Order No. 21 (an unreviewed initial determination finding four respondents, including DiscsDirect.Com, in default). In his final ID, the ALJ found that none of the asserted claims are invalid, that the accused products infringe the asserted claims,[1] and that the

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[1] In his final ID, the ALJ identified claims 1, 2, 4, 5, and 6 of the '825 patent as asserted by Philips. ID at 111-116; *see also* Philips' post-hearing brief on patent issues at 35-36 (filed July 15, 2003), Philips' proposed findings of fact at 84-98 (CFF 731-838) (filed July 15, 2003), Philips' pre-hearing statement at 5 (filed May 27, 2003), Philips' pre-hearing brief at 14-15, 71-75 (filed May 27, 2003); ALJ Ground Rule 4.d.

domestic industry requirement of section 337 had been satisfied. Nonetheless, the ALJ found no violation of section 337 because he concluded that all of the asserted patents were unenforceable by reason of patent misuse by Philips. ID at 139-220.

On November 5, 2003, Philips petitioned for review of the portion of the final ID that found the asserted patents unenforceable due to patent misuse. Respondents and the Commission investigative attorney ("IA") filed responses to Philips' petition for review.

On December 8, 2003, the ALJ issued his recommended determination on remedy and bonding.

On December 10, 2003, the Commission determined to review all of the ID's findings of fact and conclusions of law concerning patent misuse. The Commission determined not to review the remainder of the ID, thereby adopting the unreviewed portions. The Commission issued a notice dated December 10, 2003, in which it requested briefing on the issues under review, and invited interested persons to file written submissions on the issues of remedy, the public interest, and bonding. In accordance with that notice, all parties to the investigation filed timely written submissions, and timely reply submissions, regarding the issues under review.

In the final ID, the ALJ found the asserted patents to be unenforceable for patent misuse per se, and he also found patent misuse under a "rule of reason" standard. On review, the Commission affirmed the ALJ's conclusion that the asserted

patents are unenforceable for patent misuse per se, but on the ground that Philips' practice of mandatory package licensing constituted patent misuse per se as a tying arrangement between (1) licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards[2] and (2) licenses to four other patents that are not essential to that activity, *viz.*, U.S. Patent No. 5,001,692 ("the Farla '692 patent"), U.S. Patent No. 5,060,219 ("the Lockhoff '219 patent"), U.S. Patent No. 5,740,149 ("the Iwasaki '149 patent"), and U.S. Patent No. Re. 34,719 ("the Yamamoto '719 patent"). 69 *Fed. Reg.* 12711, 12712 (March 17, 2004); Comm'n op. at 23-25 (issued March 25, 2004).[3] The Commission took no position on the ALJ's conclusion that the asserted patents are unenforceable for patent misuse per se

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[2] The technical standards for the manufacture of CD-Rs and CD-RWs are set out in two publications that are jointly issued by Philips and Sony Corporation ("Sony"). "Compact Disc Recordable System Description" (RX-407C), which is commonly referred to as Part II of the Orange Book, pertains to CD-Rs. "Compact Disc ReWritable System Description" (RX-408C), which is commonly referred to as Part III of the Orange Book, pertains to CD-RWs. ID at 139-40.

[3] The ALJ identified twelve patents included in the CD-R or CD-RW package licenses as non-essential to manufacture CD-Rs or CD-RWs according to Orange Book standards. ID at 196-213. The Commission took no position on the ALJ's analysis of eight of those patents, *viz.*, U.S. Patent Nos. 4,962,493 ("the Kramer '493 patent"); 4,807,209 ("the Kramer '209 patent"); 4,942,565 ("the Lagadec '565 patent"); 5,126,994 ("the Ogawa '994 patent"); 5,978,351 ("the Spruit '351 patent"); 5,835,462 ("the Mimnagh '462 patent"); 4,990,388 ("the Hamada '388 patent"); and 5,090,009 ("the Hamada '009 patent"). Comm'n op. at 43 n.28, 50-51 (March 25, 2005).

based on theories of price fixing and price discrimination. 69 *Fed. Reg.* at 12712 n.1; Comm'n op. at 5 n.3.

The Commission also adopted the ALJ's conclusion that the asserted patents are unenforceable for patent misuse under a rule of reason standard based on the ALJ's analysis of and findings as to the tying arrangement. 69 *Fed. Reg.* at 12712; Comm'n op. at 50-52. The Commission took no position on the ALJ's conclusion that the royalty rate structure of the CD-R/RW patent pools is an unreasonable restraint of trade. 69 *Fed. Reg.* at 12712 n.2; Comm'n op. at 5, 51. The Commission also affirmed the ALJ's conclusion that the patent misuse has not been shown to have been purged. 69 *Fed. Reg.* at 12712; Comm'n op. at 63. Based on these determinations, the Commission found no violation of section 337 in this investigation. *Id.*

Philips appealed the Commission's final determination to the Federal Circuit, and respondents intervened. On September 21, 2005, the Federal Circuit issued its decision in the appeal, reversing the Commission's final determination. The Court also stated that "[b]ecause the Commission did not address all of the issues presented by the administrative law judge's decision under both the per se and rule of reason analysis, further proceedings before the Commission may be necessary with respect to whether Philips's patents are enforceable and, if so, whether Philips is entitled to any relief from the Commission." *Philips*, 424 F.3d at 1198. On December 19, 2005, the Court denied respondents' petition for rehearing en banc. The

Court issued its mandate on December 27, 2005. The Supreme Court denied respondents' petition for a writ of certiorari on June 19, 2006.

On January 17, 2006, the Commission issued an order seeking input from the parties as to how to proceed on remand. The Commission specifically requested comments as to how it should proceed with those portions of the October 24, 2003, final ID upon which the Commission did not take a position.

On February 21, 2006, Philips filed comments pursuant to the Commission's January 17, 2006, order.[4] On the same day, respondents jointly filed comments, in which they, *inter alia*, requested that the Commission reopen the record for further discovery.[5] On February 23, 2006, the IA filed his comments, in which he, *inter alia*, requested that all parties be given the opportunity to respond to the comments filed by the private parties.[6] On March 10, 2006, Philips filed a memorandum in reply to

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[4] Submission of Complainant U.S. Philips Corporation with Respect to Proceedings on Remand ("Philips' comments").

[5] Response of Respondents Princo Corp., Princo America Corp., Gigastorage Corp. Taiwan, Gigastorage Corp. USA, and Linberg Enterprise Inc. to the Commission's Order Dated January 17, 2006 ("Respondents' comments").

[6] Submission of the Office of Unfair Import Investigations in Response to the Commission Notice of January 17, 2006 ("IA's comments").

respondents' February 21, 2006, comments.[7]

On March 21, 2006, the Commission issued an order directing the parties to file responses to the comments of the private parties filed on February 21, 2006. The Commission also denied Philips' motion to file its March 10, 2006, reply memorandum without prejudice to its re-submission as part of Philips' response. On April 18, 2006, all parties filed response comments pursuant to the Commission's March 21, 2006, order.[8]

On April 25, 2006, Philips filed a motion for leave to reply, with attached reply, to the response comments filed by the IA on April 18, 2006.[9] On May

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[7] 'Memorandum of Complainant U.S. Philips Corporation in Reply to Respondents' Submission of February 21, 2006. Although Philips did not file a motion for leave to file a reply, the Commission deemed its March 10, 2006, memorandum as having been filed together with a motion for leave to reply.

[8] Memorandum of Complainant U.S. Philips Corporation in Reply to Respondents' Submission of February 21, 2006 ("Philips' response"); Memorandum of Respondents Princo Corp., Princo America Corp., Gigastorage Corp. Taiwan, Gigastorage Corp. USA, and Linberg Enterprise, Inc. Pursuant to the Commission's March 21, 2006, Order ("Respondents' response"); Submission of the Office of Unfair Import Investigations Pursuant to the Commission Order of March 21, 2006 ("IA's response").

[9] Motion of Complainant U.S. Philips Corporation for Leave to Reply to the Submission of the Office of Unfair Import Investigations ("Philips' motion for leave to reply"); Memorandum of Complainant U.S. Philips Corporation in Reply to the Submission of the Office of Unfair Import Investigations of April 18, 2006 ("Philips' reply").

2, 2006, respondents filed an opposition to Philips' motion for leave to reply to the IA's response comments.[10]

As discussed *infra* in part I of this opinion, we have determined to grant Philips' motion for leave to reply and to deny respondents' request to reopen the record for additional discovery.

The Commission previously determined that (1) the accused products infringe the asserted patent claims at issue in this investigation, (2) the domestic industry requirement of section 337 has been satisfied, and (3) none of the asserted claims of the patents in issue are invalid. However, the Commission found no violation of section 337 in this investigation because it concluded, as did the ALJ, that the patents in issue are unenforceable for patent misuse on the part of Philips. The Commission found patent misuse based on a tying arrangement between licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards and licenses to other patents that are not essential to that activity, *viz.*, the Faria '692 patent, the Lockhoff '219 patent, the Iwasaki '149 patent, and the Yamamoto '719 patent. Although the ALJ found the patents unenforceable for patent misuse on additional independent grounds, the

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[10] Opposition of Respondents Princo Corp., Princo America Corp., Gigastorage Corp. Taiwan, Gigastorage Corp. USA, and Linberg Enterprise, Inc. to U.S. Philips Corporation's Motion for Leave to Reply to the Submission of the Office of Unfair Import Investigations ("Respondents' opposition"). The IA did not file a response to Philips' motion for leave to reply.

Commission took no position on those alternative grounds.

On appeal, the Federal Circuit reversed the Commission's final determination that the patents are unenforceable for patent misuse as a tying arrangement that is illegal per se and under a rule of reason standard. In their briefing on remand, respondents urge the Commission to adopt the alternative grounds set forth in the ALJ's final ID for concluding that the asserted patents are unenforceable for patent misuse per se, *viz.*, price fixing and price discrimination. Respondents further argue that the ALJ correctly found that Philips' licensing practices constitute patent misuse under the rule of reason.

Both Philips and the IA argue that the Commission should reject the ALJ's per se theories of patent misuse based on price fixing or price discrimination. Philips further argues that none of respondents' theories of patent misuse under the rule of reason are sustainable, and urges the Commission to find a violation of section 337 and issue a general exclusion order and cease and desist orders. As noted, the Commission took no position as to the ALJ's analysis of eight of the patents found by the ALJ to be non-essential to manufacture CD-Rs or CD-RWs according to Orange Book standards. The IA urges the Commission to find patent misuse under a rule of reason theory based on the inclusion of one of those eight patents in the CD-R/RW patent pools, *viz.*, the

Lagadec patent.[11] IA's response at 2. However, the IA also contends that the record is insufficient to support the ID's holdings of patent misuse with respect to the remaining seven patents and is also insufficient with respect to the ALJ's generalized theory regarding the royalty rate structure. *Id.*

The issues presently before the Commission are those portions of the ALJ's final ID that the Commission previously determined to review, but declined to decide upon in its earlier final determination. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421 (Fed. Cir. 1984). Commission rule 210.45 (c), 19 C.F.R. § 210.45 (c) states:

> On review, the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the administrative law judge. The Commission also may make any findings or conclusions that in its judgment are proper based on the record in the proceeding.

Once the Commission determines to review an ID, it reviews the determination under a *de novo* standard. *Certain Acid-Washed Denim Garments and Accessories*, Inv. No. 337-TA-324, Commission Opinion at 4-5 (August 28, 1992) (the Commission

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[11] As noted *supra*, Philips moved for leave to reply to the IA's comments. Philips opposes this argument of the IA in the reply attached to its motion.

examines for itself the record on the issues under review); *accord, Certain Flash Memory Circuits and Products Containing Same*, Inv. No. 337-TA-382, Commission Opinion at 14 (January 9, 1997). Commission practice is consistent with the Administrative Procedure Act, 5 U.S.C. § 1 et seq. ("APA"). The APA provides that once an initial agency decision is taken up for review, "the agency has all the powers which it would have in making the initial decision except as it may limit the issues on notice or by rule." 5 U.S.C. U.S.C. § 557(b). This statutory provision and Commission rule 210.45(c) reflect the fact that the Commission is not an appellate court, but the body responsible for making the final agency decision. On appeal, only the Commission's final decision is at issue. *Fischer & Porter Co. v. United States Int'l Trade Comm'n*, 831 F.2d 1574, 1576-77 (Fed. Cir. 1987).

Having reviewed the record in this investigation, including the parties' written submissions, we have determined to reverse the ALJ's findings of patent misuse per se on theories of price fixing and price discrimination (*see* ID at 175-82), and have determined to reverse the ALJ's findings of patent misuse under the rule of reason standard. The ALJ's findings, conclusions, and supporting analysis presently under review that are inconsistent with this opinion are not adopted. In part II of this opinion, *infra*, we discuss the ALJ's conclusion that the asserted patents are unenforceable for patent misuse per se on theories of price fixing and price discrimination. In part III of this opinion, *infra*, we address respondents' argument that Philips' licensing practices constitute

patent misuse under a rule of reason approach, and the IA's argument that the inclusion of the Lagadec patent in the CD-R/RW patent pools constitutes patent misuse under the rule of reason.

Having reversed the ALJ's findings of patent misuse, we have found a violation of section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337. We have determined that the appropriate form of relief is a general exclusion order prohibiting the unlicensed entry for consumption of recordable and rewritable compact discs that infringe the claims in issue of the six patents asserted by complainant Philips in this investigation. We have determined to issue four cease and desist orders directed to domestic respondents Princo America Corporation; Gigastorage Corporation USA; Linberg; and DiscsDirect.Com. We have also determined that the statutory public interest factors enumerated in subsections (d), (f), and (g) of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337(d), (f), and (g)) do not preclude the issuance of the aforementioned general exclusion order and cease and desist orders, and that the recordable and rewritable compact discs in question may be imported into the United States during the period of Presidential review under bond in the amount of US$0.06 per such article. The issues of remedy, the public interest, and bonding are discussed *infra* in part IV of this opinion.

I. Procedural Issues

A. Philips' Motion for Leave to Reply to the IA's Response Comments

1. Positions of the Parties

Philips moves for leave to file a reply to the IA's April 18, 2006, response comments. Philips states that its own comments filed on April 18, 2006, only addressed respondents' February 21, 2006, comments, as required by the Commission's order of March 21, 2006. Philips points out that in the IA's comments filed on February 23, 2006, the IA only addressed procedural issues without expressing any substantive views. Thus, the IA's arguments concerning the Sony Lagadec patent were not presented in the IA's February 23, 2006, comments. Philips asserts that the IA's arguments in the April 18, 2006, response comments "go considerably beyond the arguments present in the [IA's] earlier briefing" and that "those arguments have never been made by respondents." Philips' motion for leave to reply at 1. Consequently, Philips contends that the Commission should grant its motion for leave to reply because the IA's "new theory would, if accepted by the Commission, entirely defeat Philips' request for an exclusion order." *Id.*

Respondents oppose Philips' motion for leave to reply. Respondents state that, if the Commission grants Philips' motion, "fairness dictates" that respondents and the IA also be allowed an opportunity to file a reply. Respondents' opposition at 2. Respondents argue that, contrary to Philips' position, the IA previously argued to the ALJ and to the Commission that Sony's Lagadec patent was nonessential and would not work with the Orange Book. Respondents assert that they also argued previously that the Lagadec patent was not essential

and would not work with the Orange Book. Respondents further argue that, contrary to Philips' contention, Philips has not been denied the opportunity to address the IA's theory of the anti-competitive harm due to the inclusion of the Lagadec patent in Philips' licenses because respondents presented the same theory of anti-competitive harm in their January 17, 2006, comments to the Commission. Thus, according to respondents, Philips could have addressed the IA's theory of anti-competitive harm in their response of April 18, 2006.

2. Analysis

The IA limited the scope of his February 23, 2006, comments to procedural issues only. Thus, the IA's substantive arguments are presented for the first time in his April 18, 2006, response comments. Philips therefore could not address the IA's substantive arguments in its own response filed on February 21, 2006. Although respondents assert that allowing Philips' reply would be unfair without another round of briefing, that assertion is belied by respondents' position that they presented the IA's argument in their own response of February 21, 2006. We have exercised our discretion and granted Philips' motion for leave to file a reply to the IA's April 18, 2006, response comments.

B. Respondents' Request to Reopen the Record for Additional Discovery

1. Positions of the Parties

Respondents request that, if the Commission

declines to adopt the ALJ's determination that the asserted patents are unenforceable for patent misuse, the Commission reopen the record for discovery "into the statements, documents and actions by Philips and the EC [European Commission] during the EC investigation" into Philips' CD-R licensing practices in Europe. Respondents' comments at 36. Respondents contend that the allegations raised in the EC investigation "closely resemble" the patent misuse claims made in this investigation and involve the same licenses, *viz.*, the CD-R pool license. *Id.* at 35-36. They assert that "[a]s a result of the EC proceedings, Philips substantially modified some of the very licensing practices that Respondents have contended are anti-competitive," including discontinuing the CD-R joint license in Europe effective December 15, 2005, lowering its royalty rate for the Philips-only CD-R licenses, and "making changes regarding its classification of essential patents." *Id.* at 3, 36. They contend that "any Philips admissions or statements regarding why it made these changes or the effect on competition due to these changes would be relevant evidence for the Commission" as would be "any ruling or findings by the EC." *Id.* at 34. They assert that a remand to the ALJ for additional discovery is appropriate and within the Commission's authority. *Id.* at 37 (citing *Certain Bearings and Packaging Thereof*, Inv. No. 337-469, Comm'n order (Aug. 6, 2003) (remanding to the ALJ for additional findings of fact and stating that, in his discretion, the ALJ may reopen the record to take further evidence and order further discovery); *Certain Lens-Fitted Film Package*, Inv. No. 337-TA-406, Order No. 137).

The IA opposes respondents' conditional request for remand and the reopening of discovery, stating that "if the Commission were to reject the patent misuse defense, then the Commission should enter a remedy consistent with that previously proposed." IA's response comments at 38-39. The IA characterizes the Commission's decisions to reopen discovery in *Bearings* and *Lens-Fitted Film Packages* as having arisen in "totally different procedural situations" from that of the instant case. *Id.* at 39. n.21. He states that the remand in *Lens-Fitted Film Packages* resulted from the decision of the Federal Circuit that a particular defense, previously disallowed, could be raised. Thus, unlike the present situation, the remanded issue had not been previously considered by the ALJ. He also notes that in *Bearings*, the remand occurred before the final determination issued.

The IA asserts that "[t]he Commission obviously has no jurisdiction to obtain discovery from the European Commission." *Id.* at 39. He dismisses respondents' assertions concerning "admissions or statements" Philips may have made during the EC proceeding as speculation. *Id.* at 39-40. He argues that respondents' request should be denied because they had their opportunity to obtain discovery concerning Philips' licensing practices and "have not shown that additional discovery is likely to produce relevant and admissible evidence." *Id.* (citing *Weisgram v. Marley Co.*, 169 F.3d 514, 517 n.2 (8th Cir. 1999); *Cleveland v. Piper Aircraft Corp.*, 985 F.2d 1438, 1449-50 (10th Cir. 1993)).

Philips also opposes respondents' request to

reopen discovery. Philips states that the EC proceeding "involved the law and process of a foreign jurisdiction" and "was closed in its initial stage after the [CD-R] manufacturers withdrew their complaint 'subsequent to settlement negotiations.'" Philips' response comments at 35 (quoting EC press release dated February 9, 2006 (attached as Exhibit A to Respondents' comments)). Philips notes that the complaint leading to the EC proceeding was filed on June 3, 2003, which is one week before the evidentiary hearing in this investigation began on June 10, 2003. Philips asserts that "[r]espondents do not explain what relevant 'admissions or statements' Philips purportedly made during the course of those foreign proceedings that respondents were not at liberty to elicit from Philips itself, when the record in this proceeding was still open or during the course of briefing before the Commission and the court of appeals, and that might shed new light on the issues now before the Commission." *Id.* at 35 (quoting Respondents' comments at 34).

2. Analysis

In support of their request to reopen the record, respondents only speculate about statements that Philips might have made during the EC proceedings. Consequently, we have determined to *deny* respondents' request to reopen the record for further discovery.

II. Per Se Theories of Patent Misuse

As noted, in its earlier final determination the Commission took no position on the conclusion in the ALJ's final ID that the asserted patents are

unenforceable for patent misuse per se based on theories of price fixing and price discrimination (*see* ID at 175-82).

A. Price Fixing

1. Positions of the Parties

Respondents state that the Federal Circuit has affirmed the finding of the Commission and the ALJ that Philips has market power in the relevant market for licensing U.S. patents that are essential for the manufacture of CD-Rs or CD-RWs according to Orange Book standards.[12] *Philips*, 424 F.3d at 1186. They assert that "Philips controls entry into the United States product market for CD-R/RW discs because a company cannot sell Orange Book

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[12] In its final determination, the Commission summarized and adopted the ALJ's market definition and market power analysis with two exceptions. Comm'n op. at 26-27 (finding the relevant market to be "the United States market for licensing the essential U.S. patents for the manufacture of CD-R/RW discs in compliance with Orange Book standards"). The Commission took no position on the statements in the final ID that (1) "Philips, Sony, Taiyo Yuden, and Ricoh are horizontal competitors in the patent licensing market" (ID at 173) and that (2) "the Philips CD-R and CD-RW patent pools constitute horizontal agreements among competitors" to control royalty rates (ID at 175). Comm'n op. at 26 n.19. The ALJ did not explain how he reached the conclusion that the licensors "are horizontal competitors in the patent licensing market," nor did he offer any supporting citations to the record. The Commission adopted the ALJ's finding that "[l]icenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs that are in technical and practical compliance with the Orange Book" (ID at 173). Comm'n op. at 27.

[compliant] CD-R/RWs without a patent license from Philips." Respondents' comments at 49 (citing ID at 370 (FF 97-99)).

In their discussion of applicable legal standards, respondents argue that patent misuse per se "may be shown by establishing that the patentee made an agreement to set a fixed price, an agreement to raise prices and/or an agreement to set a price floor under the market." *Id.* at 45. They state that in *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992), the Federal Circuit discussed three Supreme Court cases in which the Court "held that a patent holder's effort to set minimum prices on products produced under a license agreement between patent holders and licensees was patent misuse." Respondents' comments at 43 (citing *Bauer & Cie. v. O'Donnell*, 229 U.S. 1 (1913); *Straus v. Victor Talking Mach. Co.*, 243 U.S. 490 (1917); *Boston Store of Chicago v. Am. Graphophone Co.*, 246 U.S. 8 (1918)). Relying on *United States v. New Wrinkle, Inc.*, 342 U.S. 371 (1952), they state that the Court has found a Sherman Act violation when patentees fixed minimum prices on products produced under a patent license agreement. They note that in *American Photocopy Equipment Co. v. Rovico, Inc.*, 359 F.2d 745 (7th Cir. 1966), the Seventh Circuit concluded that the royalty in a license agreement had the effect of fixing the licensees' minimum selling price.[13] Relying on *United*

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[13] As pointed out by one patent commentator:

> The *Rovico* decision is of doubtful precedential value. First, the decision was made only in the context of a

States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940), they state that "[e]ven an effort to raise prices or set a price floor (as opposed to agreement on a specific price) may violate the antitrust laws." Respondents' comments at 44.

Respondents raise three price-fixing arguments in support of their contention that the ALJ correctly found patent misuse per se in this case. According to respondents, Philips used its market power: (1) to fix the price of licenses to patents essential to the manufacture of CD-R and CD-RW discs at anti-competitive levels; (2) to fix the sales price of CD-R discs in written agreements with seven CD-R manufacturers; and (3) to fix the sales price of CD-R and CD-RW discs by imposing a price floor.

Respondents contend that Philips fixed the price of patent licenses in the markets for licensing essential CD-R and CD-RW patents above fair market value. Respondents' comments at 55-60. They argue that "Philips was able to achieve its anti-

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> preliminary injunction. On remand, the trial court found that in fact the plaintiff's royalties were not exorbitant or oppressive, and the Seventh Circuit affirmed. [384 F.2d 813 (7th Cir. 1967).] Second, the court cited no authority directly on point and omitted citation of cases in the Seventh Circuit generally recognizing the discretion of a patentee to set royalties. Third, the decision has been criticized by [other] commentators and has not been followed in any subsequent decision.

Donald S. Chisum, *Chisum on Patents* § 19.04[3][f] (footnotes omitted).

competitive price by creating the patent pool and combining with its horizontal competitors." *Id.* at 55. After the Taiwan Fair Trade Commission ruled the CD-R patent pool illegal in 2001 in Taiwan, manufacturers were able to obtain patent licenses to the patents of the three pool licensors (Philips, Sony, and Taiyo Yuden) separately from each of the three licensors. The ALJ found that the royalty rates charged separately by Sony and Taiyo Yuden were much lower than the royalties those companies were able to obtain for their patents through the pool, although Philips charged higher royalty rates. Respondents argue that —

> the total royalty from individual patent licenses with Sony, Taiyo Yuden and Philips is still less expensive than the comparable pool rate. This is clear evidence of anti-competitive effect. Simply stated, Philips, Sony and Taiyo Yuden, acting as individuals, could not secure the same total royalty that they obtained when they conspired and pooled their patents.

Id. at 59 (footnote omitted). Although Philips charged higher royalty rates for its patents relative to the royalties Philips obtained through the pool, respondents assert that Philips failed to offer a "legitimate justification" for charging a higher royalty for its own patents than the royalty it obtained under the pool. *Id.* at 58-59. They argue

that Philips' royalty rate should have dropped.[14]

Respondents argue that Philips fixed the sales price of CD-Rs charged by manufacturers, by entering into written agreements with the manufacturers in which the manufacturers committed to raise their disc prices in return for a temporary reduction in royalty rates. Respondents' comments at 51-55. Relying on *United States v. Parke, Davis & Co.*, 362 U.S. 29 (1960), and *World of Sleep, Inc. v. La-Z-Boy Chair Co.*, 756 F.2d 1467 (10th Cir. 1985), they contend that [

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Respondents' comments at 54. [

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[14] Respondents argue that the division of the pool royalty between the licensors ([ ] to Philips and [ ] shared between Sony and Taiyo Yuden) resulted from "a competitive arm's length negotiation of the relative values of [the licensors'] patent portfolio. When Sony and Taiyo Yuden negotiated new separate royalties to bring their royalties in line with industry norms and the market conditions of 2001, the new Philips CD-R Only License royalty should have been reduced proportionately." Respondents' comments at 59. Respondents contend that Philips' royalty rate for its patents should be 150% (60/40) of the sum of the separate royalties negotiated by Sony and Taiyo Yuden in 2001, *viz.*, 150% of the [ ]per disc charged collectively by Sony and Taiyo Yuden, or[ ] per disc.

[15] Respondents also cite *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 704 (Fed. Cir. 1992); *In re Yarn Processing Patent Validity Litigation*, 541 F.2d 1127, 1135 (5th Cir. 1976); and *United States v. New Wrinkle, Inc.*, 342 U.S. 371, 375 (1952).

Relying on *Standard Oil Co. v. United States*, 283 U.S. 163 (1931); *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940); and *Plymouth Dealers' Ass'n of Northern California v. United States*, 279 F.2d 128 (9th Cir. 1960), respondents argue that Philips fixed the prices of CD-Rs and CD-RWs by charging an anti-competitive minimum royalty that set a "price floor, making it impossible for the prices of CD-R/RWs to drop below a certain level." *Id.* at 60-67.

2. Responses

Philips argues that respondents' claim of price fixing in the technology licensing market (*see* Respondents' comments at 55-60) fails because respondents have failed to identify any evidence that the patents included in the CD-R/RW joint licenses are economic substitutes for each other. Relying on *Texaco Inc. v. Dagher*, 126 S. Ct. 1276 (2006), Philips argues that "the *per se* rule against horizontal price fixing forbids 'pricing agreement[s] between competing entities with respect to their *competing products*.'" Philips' response at 8 (quoting 126 S. Ct. at 1280 (emphasis added by complainant)). Philips also characterizes respondents' horizontal price-fixing argument as "a claim that the royalty rate . . . is too high in relation to the market price for discs in the United States," and argues that "the Federal

Circuit has now emphatically reaffirmed that '[i]t is entirely rational for a patentee who has a 'patent that is essential to particular technology . . . to charge what the market will bear.'" *Id.* at 8-9 (quoting *Philips*, 424 F.3d at 1191). Philips notes that respondents and the ALJ "concede that the royalty rate was reasonable when it was originally set" and that "[t]here is no authority for the notion that patent holders must ensure their licensees' profitability." *Id.* at 9 n.4.

Philips contends that the ALJ "never found that Philips fixed prices in the product market" and that "[n]o finding of such vertical price fixing can be supported." *Id.* at 10. [

] Philips states that in *Business Electronics Corp. v. Sharp Electronics Corp.*, 485 U.S. 717 (1988), the Supreme Court stated that "a vertical restraint is not illegal *per se* unless it includes some agreement on price or price levels." 485 U.S. at 735-36. Philips reenforces its argument by comparing the cases relied upon by respondents (*Parke, Davis* and *World of Sleep*) with *E.T. Barwick Industries, Inc. v. Walter E. Heller & Co.*, 692 F. Supp. 1331 (N.D. Ga. 1987) and *Westinghouse Electric Corp. v. CX Processing Laboratories, Inc.*, 523 F.2d 668 (9th Cir. 1975). Philips' response at 11. According to Philips, in *Parke, Davis*, vertical price fixing was found where the manufacturer took "affirmative action to achieve uniform adherence by inducing each customer to . . . avoid price competition," while in *Barwick* no unlawful price fixing was found where the lender "forced" the manufacturer "to raise the price of its

mill goods . . . to indirectly raise the cost of accounts receivable." *Id.* at 11 (quoting *Parke, Davis*, 362 U.S. at 47 and *Barwick*, 692 F. Supp. at 1342). [

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As to respondents' claim that the royalty rate in the CD-R/RW pool licenses set an unlawful price "floor" in the CD-R/RW product market, Philips asserts that the ALJ "determined that Philips had set a 'floor' beneath which the *royalty rate* could not fall," but the ALJ "did not conclude that the royalty rate effectively set a minimum price in the *product* market." Philips' response at 12 (citing ID at 217). Philips argues that, as a patentee, it has the right to set the royalty for use of its patents. *Id.* at 12 (citing *Standard Oil*, 283 U.S. at 172, 179; *Brulotte v. Thys Co.*, 379 U.S. 29, 33 (1964); *USM Corp. v. SPS Techs., Inc.*, 694 F.2d 505, 511 (7th Cir. 1982); and *Philips*, 424 F.3d at 1191-92). Thus, "[w]hile any cost incurred by a licensee, including the cost of royalties, can constrain the minimum prices at which the licensee can profitably sell, the cost does not thereby become unlawful or a basis for alleging price fixing." *Id.* Philips asserts that its "right to determine its royalty rates renders respondents' related arguments about 'fixing' disc prices irrelevant." *Id.* According to Philips, "[t]he amount of royalties charged by other

licensors in other markets, and whether they charge a percentage of sales or on some other basis are beside the point." *Id.* at 13.

The IA asserts that all patent pools "fix the price" of patent licenses in that the pool licensors "agree on the prices at which they will sell the license." IA's response at 9. He argues that respondents' allegation that the prices for the package licenses are anti-competitive "must be evaluated under the rule of reason, not the *per se* rule." *Id.* at 9-10 (citing *inter alia* U.S. Dep't of Justice & FTC, *Antitrust Guidelines for the Licensing of Intellectual Property* §§ 3.4, 5.5 (April 6, 1995) ("*Antitrust Guidelines*")). He identifies *Standard Oil Co. v. United States*, 283 U.S. 163, 169-79 (1931), and *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 8-9, 20 (1979), as having applied the rule of reason in evaluating challenges to patent and copyright pools under the Sherman Act. He contends that the Supreme Court has recognized that not all "literal" price fixing constitutes a per se violation of the antitrust law. *Id.* at 9-10 (citing *Broadcast Music*, 441 U.S. at 8-9, 20, and *Texaco*, 126 S. Ct. at 1280).

The IA does not address the merits of respondents' argument that the written agreements between Philips and CD-R manufacturers are patent misuse per se. The IA contends that respondents waived this issue because the ALJ "did not adopt this theory and [r]espondents did not petition for

review."[16] IA's response at 9 n.5 (citing Commission rule 210.43(b)(2)).

3. Analysis

We have determined to reverse the ALJ's determination (ID at 176-79) that Philips' licensing practices constitute price-fixing arrangements that are illegal per se.

We disagree with respondents' argument that Philips committed patent misuse per se by combining with its horizontal competitors to fix the price of patent licenses in the relevant markets (*i.e.*, the markets for licensing essential CD-R and CD-RW U.S. patents) at anti-competitive levels. *See* Respondents' comments at 55-60. An individual patentee is, of course, free to set the royalty rate in a patent license. As explained in a portion of the *Antitrust Guidelines* that is cited by the ALJ in his discussion of price fixing (ID at 178):

> Each of the patent owners has a right to exclude others from using its patent. The right does not extend, however, to the agreement to assign rights jointly. *To the extent that the patent rights cover technologies that are close substitutes*, the joint determination of royalties likely

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[16] We do not find that respondents waived this issue. The Commission determined to review the patent misuse analysis in the final ID in its entirety, and on review, respondents did raise this argument. *See* Respondents' submission on review at 47-49 (Jan. 9, 2004).

> would result in higher royalties and higher goods prices than would result if the owners licensed or used their technologies independently. In the absence of evidence establishing efficiency-enhancing integration from the joint assignment of patent rights, the Agency [FTC or U.S. Dep't of Justice] may conclude that *the joint marketing of competing patent rights constitutes horizontal price fixing and could be challenged as a per se unlawful horizontal restraint of trade.* If the joint marketing arrangement results in an efficiency-enhancing integration, the Agency would evaluate the arrangement under the rule of reason.

Antitrust Guidelines § 5.1 (example 9) (emphasis added). Respondents have not identified, nor are we aware of, evidence in the record that the patents in the joint package licenses "cover technologies that are close substitutes." *Id.* Consequently, the joint package licenses have *not* been shown to be "the joint marketing of *competing* patent rights" that "constitute[ ] horizontal price fixing and could be challenged as a per se unlawful horizontal restraint of trade." *Id.* (emphasis added). Because the patents have not been shown to be competing, the pool royalty rate set by Philips and its co-licensors is not a "pricing agreement between competing entities with respect to their competing products." *Texaco*, 126 S. Ct. at 1280.

The ALJ found that the smallest package of

essential patents identified as "essential" by Philips in the joint CD-R pool is eleven patents, seven owned by Philips, two owned by Sony, and two owned by Taiyo Yuden. FF 88, 104–106. He concluded that both of Sony's patents (the '565 Lagadec patent and the '994 Ogawa patent) should not have been included in the pool and that both of Taiyo Yuden's patents (the Hamada '388 and '009 patents) should not have been included in the pool. ID at 197–201, 209–13. However, the ALJ did not conclude that Taiyo Yuden's patents did not belong in the pool on the ground that the technology covered by Taiyo Yuden's patents and the technology covered by Philips' patents are "competing;" rather, he found that there were viable economic alternatives to the technology covered by Taiyo Yuden's patents *outside the pool*. ID at 209-11. The ALJ also reasoned that Sony's '994 Ogawa patent did not belong in the pool because economically viable alternative technologies existed *outside the pool*. ID at 211-13.

Respondents have suggested that Sony's '565 Lagadec patent is an alternative to Philips' '825 and '856 patents.[17] In response, Philips argues that the '565 patent is "a technically blocking patent that must be included in the joint license" because "the '565 patent includes one claim that reads on every Orange Book-compliant disc." *See* Philips' response at 8 n.3. The ALJ rejected Philips' argument. ID at

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[17] As noted in the Commission's previous opinion, the essentiality of the '825 and '856 patents to the manufacture of Orange Book compliant discs has not been challenged in this investigation. Comm'n op. at 24 n.17.

197-201. Philips contends that the ALJ erred in rejecting the opinion of its expert (Rubenstein) that claim 6 covers a portion of the Orange Book standards. If Philips is correct that the Lagadec '565 patent is "a technically blocking patent," then no misuse flows from including the patent in the joint licenses. On the other hand, as discussed below, if the ALJ's conclusions regarding the scope of the claims of the Lagadec '565 patent are correct, we reject respondents' and the IA's various theories of patent misuse because there has been no showing that the Lagadec '565 patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of the anti-competitive effect required under a rule of reason analysis.

The ALJ found that the claims of the Lagadec '565 patent do not cover the ATIP technology of the Orange Book (ID at 200), and that "[t]he Orange Book relies upon Philips' ATIP technology, not Lagadec's digital technology" (FF 470). He noted that "the Hesselink testimony offered by Complainant is not just that the Lagadec '565 patent disclosure is too narrow to anticipate the '825 patent; it is that the Lagadec '565 patent constitutes *completely different technology* that does not work well according to the Orange Book standards. This testimony renders Lagadec extraneous to the Orange Book."[18] ID at 200

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[18] The ALJ went on to remark that the inclusion of Lagadec in the pool "appears to be an attempt to forestall digital approaches to achieving what the Philips analog technology has achieved." ID) at 200 n.120 (italics in original, underscoring

n.120 (emphasis in the ID).[19] The ALJ concluded that "Lagadec constitutes, at best, a substitute technology for the ATIP standard, and at worst, an extraneous, non-working add-on to the patent pool." ID at 201. Notably, even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs.[20] Consequently, the record in this investigation does not support a finding that the Lagadec '565 patent competes with the '825 or '856 patents.

In previous briefing to the Commission, respondents argued that Philips and Sony were potential horizontal competitors who "chose not to compete," but rather "effectively eliminated competition in the industry by joining forces and securing the cooperation of many other competitors in following a single standard [the Orange Book] based on their combined technologies." Respondents' reply on Commission review of patent misuse at 72-

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added). Because the ID fails to provide a basis for that remark, we decline to adopt it.

[19] The ALJ credited testimony that the Lagadec approach is prone to errors and "did not provide a scheme that would work and was reliable." ID at 200 (citing Trans. (Hesselink) at 2581, 2585; FF 94.

[20] "Respondents have pointed to no evidence that the Lagadec approach is a commercially viable technological alternative to the technology of Philips' '825 or '856 patents. Moreover, the commercial viability of a method that is prone to errors, unreliable, and unworkable is doubtful. *See* Trans. (Hesselink) at 2581, 2585.

74 (filed January 16, 2004) ("the patent pools have integrated competing implementations of at least one aspect of recordable CD technology" (citing ALJ's findings of fact concerning Lagadec '565 patent, FF 457-470)). Respondents argued that "Philips and Sony had been separately developing CD technology prior to joining forces," and "took their efforts a step further by convincing many other competitors to follow their standard rather than develop products independently." *Id.* at 73 n.41 (citing Dep. Trans. (Heemskerk) at 134-37, 141-44).

However, the portions of the Heemskerk deposition transcript (Dep. Trans. (Heemskerk) at 134–37) cited by respondents discuss the development of the CD-DA disc format (Dep. Trans. at 136:24–25) for the "conventional" CD (ID at 7). The specifications for CD-DA discs and players are contained in the "Red Book," while the CD-R and CD-RW system specifications are contained in the Orange Book. FF 11-14, 18, 26. "One of the purposes of the Orange Book is to ensure that CD-R discs are backward compatible to CD digital audio systems, which are covered by Red Book specifications." FF 27. The portions of the deposition transcript cited by respondents discuss the presentation of a version of the Red Book — not the Orange Book — to a consortium of Japanese companies (Dep. Trans. (Heemskerk) at 141–44). Although respondents asserted that "Philips and Sony . . . convinc[ed] many other competitors to follow their standard rather than develop products independently," the specification under discussion in the portion of the

Heemskerk deposition testimony cited by respondents is the Red Book, not the Orange Book.[21]

In their current briefing to the Commission, respondents argue that Philips combined with its "most likely" horizontal competitors to restrain competition:

> [w]hen Philips decided to commercialize its recordable CD technology and patents, it could have — and should have — licensed its patents individually. Instead, Philips chose to combine with its most likely competitors. . . .

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[21] The ALJ found that "[t]he development of recordable compact disc technology was initially spurred by the interest expressed to Philips in creating a user-recordable optical disc compatible with existing CD hardware." FF 3 (citing Trans. (Mons) at 365 (discussing CD-PROM development "write-once recordable disc")). He further found that "Philips' and Sony's joint development of CD-R and CD-RW technology was an outgrowth of their earlier joint development work on compact disc technology and the work of others." FF 2 (citing *inter alia* Trans. (Mons) at 371). Mons testified that after about a year of Philips working by itself on the CD-PROM project, "we contacted Sony and asked them whether they would be interested in joining us in this development." Trans. (Mons) at 371. When asked why Sony was contacted, Mons replied that "we again liked to have that combination of two groups of engineers." *Id.* He testified that —

> [w]e were used to Sony in the meantime because we had done CD audio together with them. We had done CD-ROM together with them. So we knew pretty well how to work together with the Sony engineers. We knew that it worked well.

Trans. (Mons) at 371; *see also*. Trans. (Mons) 464-66.

> · Philips' intent to control the CD-R/RW markets and restrain competition is established by its history and actions. When Mr. Heemskerk, Philips' 30(b)(6) corporate representative, was asked why Philips combined with Sony, he referred back to the unwanted competition Philips endured in trying to commercialize an earlier storage device, the audio cassette tape. (Heemskerk Dep. Tr. at 127:22-130:09.) The adoption of Philips' audio cassette tape, and resulting profits, was slowed due to the availability of alternatives such as the 8-track tape. *Id.* Thus, to avoid such competition, Philips invited the competition to work with Philips on CD-R/RWs and combine their patents into one pool that would successfully eliminate competition.
>
> Philips and Sony joined forces to develop recordable CD technology, rather than competing with each other by developing separate, competing technologies. (ID at 356-57 (FF 1-8).) Philips and Sony developed CD-R/RW formats around their patented technologies, and codified mandatory use of their patents in the Orange Book.

Respondents' comments at 49-50. Respondents' argument is not persuasive because respondents have not pointed to evidence that establishes that, absent the pooling arrangements, the pool licensors would have competed in the technology licensing market. Respondents again rely on deposition testimony (Heemskerk) relating to discussions between Philips and Sony regarding the CD-DA

specification, not the Orange Book. *See* Heemskerk Dep. Trans. at 126: 4-127:20.

In sum, because there has been no showing that the patents in the pool are substitutable, the agreement between the licensors to set a fixed royalty for joint licenses under the pool is not price fixing per se in the market for licensing CD-R/RW patents. "An agreement among persons who are not actual or potential competitors in a relevant market is for Sherman Act purposes *brutum fulmen* [an empty threat]." *United States v. Sargent Elec. Co.*, 785 F.2d 1123, 1127 (3d Cir. 1986) (bid rigging conspiracy).

Respondents' allegations of per se price fixing in the product market are also not persuasive. Respondents' first argument is that Philips imposed a price floor *(i.e.,* a minimum price for CD-R and CD-RW discs) through the "anti-competitive minimum royalty" charged for the joint license to the CD-R/RW patents of Philips and co-licensors. *See* Respondents' comments at 60-67. Respondents argue that "Philips committed *per se* price-fixing under *Standard Oil* because: (1) the royalty rate imposed is a significant production cost; and (2) the combining patent owners dominate the industry." *Id.* at 60 (citing *Standard Oil*, 283 U.S. at 174 ("The rate of royalties may, of course, be a decisive factor in the cost of production. If combining patent owners effectively dominate an industry; the power to fix and maintain royalties is tantamount to the power to fix prices")). However, *Standard Oil* does not compel a finding of per se price fixing in this investigation because, unlike the agreements at

issue in that case, the joint licenses at issue here do not involve competing patents.

In *Standard Oil*, the Supreme Court rejected the government's contention that the pooling of certain patents, which covered processes for "cracking" oil to produce gasoline, violated the Sherman Act. The patent pooling agreements at issue in *Standard Oil* did not "impose[] any restriction upon the quantity of gasoline to be produced, or upon the price, terms, or conditions of sale, or upon the territory in which sales may be made." *Standard Oil*, 283 U.S. at 170. The agreements provided for the division between the patent owners of the royalties that the licensees would pay and set minimum royalties per barrel of oil cracked by the licensees. *Id.* at 173-74. The relevant language in *Standard Oil* appears in the following passage:

> The main contention of the Government is that even if the exchange of patent rights and division of royalties are not necessarily improper and the royalties are not oppressive, the three [cross-licensing agreements] are still obnoxious to the Sherman Act because specific clauses [providing for the sharing of a fixed royalty between the licensors] enable the [licensors] to maintain existing royalties and thereby to restrain interstate commerce. . .
>
> The rate of royalties may, of course, be a decisive factor in the cost of production. If combining patent owners effectively dominate an industry, the power to fix and

> maintain royalties is tantamount to the power to fix prices. Where domination exists, a pooling of competing process patents, or an exchange of licenses for the purpose of curtailing the manufacture and supply of an un-patented product, is beyond the privileges conferred by the patents and constitutes a violation of the Sherman Act. The lawful individual monopolies granted by the patent statutes cannot be unitedly exercised to restrain competition. But an agreement for cross-licensing and division of royalties violates the Act only when used to effect a monopoly, or to fix prices, or to impose otherwise an unreasonable restraint upon interstate commerce. In the case at bar, the primary defendants own competing patented processes for manufacturing an un-patented product which is sold in interstate commerce; and agreements concerning such processes are likely to engender the evils to which the Sherman Act was directed. We must, therefore, examine the evidence to ascertain the operation and effect of the challenged contracts.

283 U.S. at 174–75 (footnotes and internal citations omitted). The above-quoted passage states that the agreements at issue in *Standard Oil*, which "are likely to engender the evils to which the Sherman Act was directed," are agreements concerning "competing patented processes for manufacturing an un-patented product." *Id.* Although the Court does state that "[i]f combining patent owners

effectively dominate an industry, the power to fix and maintain royalties is tantamount to the power to fix prices," what the Court actually identifies as constituting a violation of the Sherman Act "where domination exists" is "a pooling of *competing* process patents, or an exchange of licenses for the purpose of curtailing the manufacture and supply of an un-patented product" *Id.* Because the joint licenses in this investigation do not involve competing patents, *Standard Oil* does not compel a finding of per se price fixing here.

Moreover, in evaluating whether the particular cross-licensing and division of royalties agreement that involved competing patents constituted a violation of the Sherman Act, the Supreme Court went on to "examine the evidence to ascertain the operation and *effect* of the challenged contracts." *Standard Oil*, 283 U.S. at 163 (emphasis added). The Court examined the evidence and found "[n]o monopoly, or restriction of competition" in "the business of licensing patented cracking processes," "in the production of either ordinary or cracked gasoline," or "in the sale of gasoline." 283 U.S. at 175-78. In its previous opinion in this investigation, the Commission adopted much of the ALJ's market definition and market power analysis. *See* Comm'n op. at 26-27. In determining that Philips has market power in the technology licensing market for essential CD-R/RW patents, the Commission noted the ALJ's finding that "[l]icenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs that are in technical and practical compliance with the Orange Book" (ID at 173). *Id.* at 27. Nonetheless, in his final ID the ALJ

concluded that the record did not demonstrate that Philips and its fellow licensors possessed market power in the worldwide product market for CD R/RW discs. ID at 171-73. The ALJ found that the "evidence of the relatively minor impact of Philips and its fellow licensors in the worldwide product market for CD-R/RW discs and on disc prices does not conclusively demonstrate that they possess market power in that market." ID at 173.

The *Antitrust Guidelines state* that "[w]hen . . . pooling arrangements are mechanisms to accomplish naked price fixing . . ., they are subject to challenge under the per se rule." *Antitrust Guidelines § 5.5 (citing United States v. New Wrinkle, Inc.*, 342 U.S. 371 (1952)); ID at 178-79; *see also* XII Herbert Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* (1999) ¶ 2004a (stating that per se rule against horizontal price fixing "applies virtually without exception when the price fix is 'naked,' in the sense that it does not accompany any significant integration of research and development, production or distribution"). In *Broadcast Music*, the Supreme Court held that certain blanket licenses to copyrighted musical compositions were not per se price fixing. The Supreme Court stated that —

> [t]he blanket license, as we see it, is not a "naked restrain[t] of trade with no purpose except stifling of competition," *White Motor Co. v. United States*, 372 U.S. 253, 263 (1963), but rather accompanies the integration of sales, monitoring, and

> enf rcement against unauthorized copyright use. *See* L. Sullivan, *Handbook of the Law of Antitrust* 59, p. 154 (1977). As we have already indicated, ASCAP and the blanket license developed together out of the practical situation in the marketplace: thousands of users, thousands of copyright owners, and millions of compositions. Most users want unplanned, rapid, and indemnified access to any and all of the repertory of compositions, and the owners want a reliable method of collecting for the use of their copyrights. Individual sales transactions in this industry are quite expensive, as would be individual monitoring and enforcement, especially in light of the resources of single composers. Indeed, as both the Court of Appeals and CBS recognize, the costs are prohibitive for licenses with individual radio stations, nightclubs, and restaurants, 562 F.2d, at 140 n.26, and it was in that milieu that the blanket license arose.

Broadcast Music, 441 U.S. at 20-21. In reversing the Commission's final determination concluding that the package licenses are an illegal tying arrangement, the Federal Circuit stated that Philips' licenses "have some of the same advantages as the package licenses at issue" in *Broadcast Music*. *Philips*, 424 F.3d at 1193 (noting that "a package licensing agreement would ensure access and save costs").

Respondents argue that the "unique fact situation" surrounding the blanket license at issue in *Broadcast Music* is not present in this investigation. Respondents' comments at 61-62. They contend that in a later case, *Arizona v. Maricopa County Medical Society*, 457 U.S. 332 (1982), the Supreme Court made clear "the limited applicability" of *Broadcast Music* and "found price fixing among doctors in violation of Section One of the Sherman Act." *Id.* As discussed above, respondents have not established that the pooled CD-R/RW patents of the different licensors are competing. A license to the non-competing CD-R/RW patents of the co-licensors is like the blanket license at issue in *Broadcast Music* in that the license at issue is not a "product" that could be provided by any one of the licensors individually. *See Broadcast Music*, 441 U.S. at 21-23; *Maricopa*, 457 U.S. at 355-56. The licensors of the non-competing CD-R/RW patents must agree among themselves as to the price (the royalty) to be charged licensees for the new "product." Thus, the joint licensing arrangement at issue in this investigation should not be viewed as a "naked" price-fixing agreement, but rather should be understood as "accompanying the integration of sales, monitoring, and enforcement against unauthorized . . . use." *See Broadcast Music*, 441 U.S. at 20.

Significantly, respondents have not contended that the joint licenses of Philips and its co-licensors (or the pooling arrangement between the co-licensors) contain express provisions setting prices for the CD-R/RWs produced under the

patents.[22] *Cf. New Wrinkle*, 342 U.S. at 375-76 (patent pooling agreement requiring licensees to "observe in all sales of products covered by the licensed patents a schedule of minimum prices, discounts and selling terms established by the licensor" held per se violation of Sherman Act). Although the joint license requites a licensee to pay the royalty (a production cost), this requirement leaves the licensee discretion to set the sale price for products produced under the license. *See Kingray, Inc. v. Nat'l Basketball Ass'n*, 188 F. Supp.2d 1177, 1187-91 (S.D. Cal. 2002) ("a contract giving a distributor discretion to set the price for product but requiring the distributor to pay the manufacturer a set percentage or minimum price as a royalty does not constitute price fixing") (following *Gen. Cinema Corp. v. Buena Vista Distribution Co.*, 681 F.2d 594, 597-98 (9th Cir. 1982)); *see also* VIII Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶ 1627c (2d ed. 2004). Consequently, setting a minimum royalty rate in a joint license is not the same as setting a minimum selling price for products (CD-R/RWs) produced under a joint license. Therefore, the joint licenses in this case are unlike the pooling agreement condemned in *New Wrinkle*.

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[22] Respondents' argument concerning Philips' licenses to its own patents is addressed *infra* in our discussion of respondents' other argument for price fixing in the product market (*i.e.*, Respondents' comments at 51-55).

Although respondents contend that the pool licensors "erroneously" set the royalty (*see* Respondents' comments at 63-65), this portion of their comments does not include citations to any case law in support of their argument that the licensors' method of setting the pool royalty somehow renders the licenses illegal per se — nor are we aware of any such authority.[23] Respondents argue that a royalty that is not a small fraction of the manufacturing cost or the selling price of a product "violates the Department of Justice's

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[23] Respondents appear to suggest that Philips had a duty to readjust its royalty rates as product prices fell. In his final ID, the ALJ noted that —

> the evidence of record here shows that the patent pool royalty rates charged by Philips and its licensor-partners for CD-R/RWs are *significant* product price components that currently equal [ ] of Respondents' costs of manufacture. Even if these costs were much higher in the early 1990s when the patent pools began, they are no longer and do not excuse Philips' insistence on a royalty rate that amounts to far more than a 'tiny fraction' of CD-R/RW selling prices.

ID at 179 n.109 (underscoring added). However, in remanding this investigation, the Federal Circuit indicated its disagreement with analytical approaches that condemn a license as unenforceable based on "developments that occurred after execution of the license." *Philips*, 424 F.3d at 1197; *see also United States v. Westinghouse Elec. Corp.*, 648 F.2d 642, 648 (9th Cir. 1981) ("patent system [would] be undermined if a licensing agreement, perfectly legal when signed, might later form the basis of an antitrust violation because the licensee had flourished under the agreement"). Consequently, we reject respondents' suggestion and decline to adopt the ALJ's reasoning.

Business Review Letter Requirements."[24] *Id.* at 65-67. However, the business review letters do not represent "condition[s] imposed by the DOJ for a legal pool" (Respondents' comments at 66), but rather present "the enforcement intention of the Division as of the date of the letter" (28 C.F.R. § 50.6(9)). The portions of the business review letters cited by respondents state that where patent pool royalty rates are small relative to the manufacturing costs of products produced under licenses to the pooled patents, those royalty rates are unlikely to facilitate collusion among sellers in downstream product markets. *See* CX-355 at 11. Contrary to respondents' suggestion, the letters do *not* stand for the proposition that relatively higher royalty rates constitute price-fixing per se in downstream product markets.

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[24] Respondents do not rely on business review letters as support for finding a flat royalty or a royalty that is "too high" to be illegal per se. Indeed the business review letters cited by respondents describe licensing programs with flat per-unit royalties and royalties that are a percentage of net sales price subject to a minimum flat royalty. The 6C DVD letter (CX-358) describes the royalties under the DVD patent license as $.075 per DVD Disc and 4% of the net sales price of DVD players and DVD decoders, with a minimum royalty of $4.00 per player or decoder." CX-358 at PHX 009128-29. The 3C DVD letter (CX-357) describes the royalties under two portfolio licenses as follows: "The Player License per-unit royalty is to be 3.5% of the net selling price for each player sold, subject to a minimum fee of $7 per unit, which drops to $5 as of January 1, 2000. The Disc License royalty is to be $.05 per disc sold." CX-357 at 5 (footnote omitted). The MPEG-LA letter (CX-355) states that "most of the royalties are set at $4.00 per licensed product." CX-355 n.20.

We now turn to respondents' second argument for per se patent misuse premised on price fixing in the product market, *viz.*, that Philips fixed the sales price of CD-R discs by manufacturers in certain written agreements with individual CD-R manufacturers.[25] *See* Respondents' comments at 51-55. In support of their argument, respondents rely on the following two findings of fact in the ALJ's final ID:

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In response, Philips urges the Commission to compare *E.T. Barwick Industries, Inc. v. Walter E. Heller & Co.*, 692 F. Supp. 1331, 1342 (N.D. Ga. 1987), and *Westinghouse Electric Corp. v. CX Processing Laboratories, Inc.*, 523 F.2d 668, 674 (9th Cir. 1975), with *Parke, Davis* and *World of Sleep*. Philips contends that its agreements with the CD-R manufacturers "simply confirmed the signing manufacturers' legal obligation to pay royalties for the use of patented technology" and "did not specify, or even suggest any particular price for discs." Philips' response at 11. According to Philips, the agreements therefore "fall short of meeting the Supreme Court's requirements for finding a vertical price-fixing agreement" *Id.*

A preliminary issue is whether Philips' characterization of the restraint imposed in the written agreements between Philips and its manufacturer-licensees as "vertical" is correct. "Restraints imposed by agreement between competitors have traditionally been denominated as horizontal restraints, and those imposed by agreement between firms at different levels of distribution as vertical restraints." *Business Electronics*, 485 U.S. at 731. The first question, therefore, is whether Philips and its manufacturer-licensees are competitors in the CD-R product market. The ALJ's finding that Philips sells CD-Rs to retail outlets (ID at 172) is supported by substantial evidence, *viz.*, the testimony of Philips'

expert McCarthy.[26] Trans. (McCarthy) at 1988-1990; CX-618C (slides 26 and 27)).

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] The Commission previously adopted the ALJ's finding that "[n]o one can manufacture or sell CD-R or CD-RW discs legally in the United States without taking a license to the Philips patents." ID at 173; FF 222 (ID at 390); Comm'n op. at 26-27. Absent a license from Philips, the manufacturer-licensees cannot participate in the CD-R market without infringing Philips' patents. Thus, the relationship between Philips and the manufacturer-licensees is essentially vertical, rather than horizontal. *See Antitrust Guidelines*, § 3.3 ("For analytical purposes, the Agencies ordinarily will treat a relationship between a licensor and its licensees, or between licensees, as horizontal when they would have been actual or likely potential competitors in a relevant market in the absence of the license"); *see also* XII Herbert Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶2040c (1999).

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[26] However, Philips apparently does not manufacture CD-Rs for commercial sale. Trans. (McCarthy) at 1986:5:13, CX-618C (slide 24).

In the antitrust analysis of vertical restraints, there is a clear trend away from a per se analysis in favor of the application of the rule of reason. Thus, the Supreme Court held in *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977), that non-price vertical restraints are not illegal per se but should be analyzed under the rule of reason. 433 U.S. 36 (overruling *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967)). In *Monsanto Co. v. Spray-Rite Service Corp.*, 465 U.S. 752 (1984), the Solicitor General suggested that the Court reconsider whether the per se rule should apply to resale price maintenance. 465 U.S. at 761 n.7. The Court declined that suggestion, noting that "[n]either party argued in the [d]istrict [c]ourt that the rule of reason should apply to a vertical price-fixing conspiracy, nor raised the point on appeal." *Id.* Then, in *State Oil Co. v. Khan*, the Court held that maximum resale price maintenance was not illegal per se, but would be evaluated under the rule of reason. 522 U.S. 3 (1997) (overruling *Albrecht v. Herald Co.*, 390 U.S. 145 (1968)). However, in overruling *Albrecht*, the Court noted that minimum resale price maintenance was not at issue and remained illegal per se. *See Khan*, 522 U.S. at 17.

In *World of Sleep*, one of the cases cited by respondents, the Tenth Circuit rejected the "argument that a vertical conspiracy which maintains resale prices without setting a fixed price is not illegal per se." 756 F.2d at 1477. The court stated that "[t]he relevant consideration is not whether a specific price is set, but whether a dealer's independent judgment is eliminated through a coerced agreement." *Id.* The alleged agreement in

World of Sleep was a "promise" "extracted" by a manufacturer (La-Z-Boy) from its distributor (Mauldin Corporation) that the distributor would "get his prices up and keep them up." 756 F.2d at 1472, 1477 ("World of Sleep contends that La-Z-Boy successfully pressured Mauldin to agree to keep his prices above the level he would have set in response to World of Sleep's competition"). [

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In support of its interpretation of the written agreement, Philips relies on the testimony of Mr. Beune, Senior Vice President of Philips Electronics Hong Kong Limited. *See* Trans. (Beune) at 2330. Mr. Beune testified that the written agreements state the manufacturer's understanding that "if you have to pay royalties, it is an integral part of your cost price." Trans. (Beune) at 2479:13-16. Mr. Beune repeatedly testified that the "commitment" made by

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the manufacturer was to recognize that royalties paid are part of the cost price:

> Q: But you suggested here — actually, more than suggested, you asked for their commitment that they would include the royalty in how they price their product; isn't that right?
>
> A: No, that's not right. What they admitted here, what we asked them to confirm in writing is that they agree that royalties are an integral part of their cost price, nothing more, nothing less.

Trans. (Beune) at 2480:3-10; *see also* 2479:3-17; 2481:9-15; 2481:22-2482:3. Mr. Beune distinguished between the sales price ("[i]t's a free market and only the manufacturer can determine its own selling price") and the cost price. Trans. (Beune) at 2482. He testified that the fourth "whereas" clause [

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refers to the manufacturer's cost price, rather than sales price. Trans. (Beune) at 2482-83.

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Philips also states that its agreements with the CD-R manufacturers "did not specify, or even suggest any particular price for discs, and thus obviously did not constitute agreements with licensees to fix their prices." Philips' response at 11. In a parenthetical comment concerning the 1975 decision of the Ninth Circuit in *Westinghouse*, Philips suggests that an agreement on "express resale price" is required for per se vertical price maintenance. *Id.* at 11. However, elsewhere in its response, Philips quotes the 1988 Supreme Court decision, *Business Electronics*, as stating that "a vertical restraint is not illegal *per se* unless it includes some agreement on price or price levels." *Business Electronics*, 485 U.S. at 735-36

(underscoring added) (quoted in Philips' response at 10).

The analysis of the Tenth Circuit in *World of Sleep*, which pre-dates *Business Electronics*, relies on the reasoning of the Supreme Court in horizontal price-fixing cases. Thus, it may be questioned whether *World of Sleep* survives *Business Electronics*. [

] We are aware of one Seventh Circuit case that suggests that "price levels" should be understood as a range of specific prices. *See Center Video Indus. Co. v. United Media, Inc.*, 995 F.2d 735, 739 (7th Cir. 1993).

The issue before the Supreme Court in *Business Electronics* was "the proper dividing line between the rule that vertical price restraints are illegal *per se* and the rule that vertical non-price restraints are to be judged under the rule of reason." *Business Electronics*, 485 U.S. at 720. The case involved the termination by a manufacturer of a price cutting distributor. The Fifth Circuit held that

> in order for a manufacturer's termination of a distributor to be illegal *per se*, it must be pursuant to a price maintenance agreement with another distributor. That distributor *must expressly or impliedly agree to set its prices at some level, though not a specific*

> *one. The distributor cannot retain complete freedom to set whatever price it chooses.*

Business Elecs. Corp. v. Sharp Elecs. Corp., 780 F.2d 1212, 1218 (5th Cir. 1986) (emphasis added); *see also Business Electronics*, 485 U.S. at 722-23 (summarizing the case below and quoting the italicized language from the holding of the court of appeals). The Supreme Court affirmed. *Business Electronics*, 485 U.S. at 735-36 ("a vertical restraint is not illegal *per se* unless it includes some agreement on price or price levels"). [28] [

] A signatory manufacturer no longer retains "complete freedom to set whatever price it chooses." 780 F.2d at 1218.

Nonetheless, the written agreements do not constitute the kind of price fixing that has been deemed illegal per se by the Supreme Court. Since the agreements at issue do not impose a minimum *resale* price condition (*cf. United States v. Parke, Davis & Co.*, 362 U.S. 29 (1960); *see also United*

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[28] "*See* 8 Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶1625c4 & n.67 (2d ed. 2004) ("if a price-fixing agreement can be found between the manufacturer and some particular dealer, such as one who complained about the discounts of a dealer who was terminated in response to such complaints, the absence of any specific resale price would not save the manufacturer").

States v. Gen. Elec. Co., 272 U.S. 476, 493-94 (1926) (discussing cases holding resale price fixing of patented goods illegal per se, *viz.*, *Boston Store of Chicago v. Am. Graphophone Co.*, 246 U.S. 8 (1918); *Straus v. Victor Talking Mach. Co.*, 243 U.S. 490 (1917); and *Bauer & Cie v. O'Donnell*, 229 U.S. 1 (1913)), this is not a resale price maintenance case.[29] Under *General Electric*, a patentee may set the price at which a licensee sells products that are manufactured under the license.[30] 272 U.S. at 494; *see* Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley, *IP and Antitrust, An Analysis of Antitrust Principles Applied to Intellectual Property Law* §§ 24.2, 31.1 - 31.4.

The *General Electric* decision has been criticized. *See, e.g.*, Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley, *IP and Antitrust, An Analysis of Antitrust Principles Applied to Intellectual Property Law* § 31.2 at 31-12 ("[w]hile General Electric (GE) has never been overruled, subsequent decisions in both the Supreme Court and the lower courts have construed it narrowly, and the government has consistently been hostile"). The *Antitrust Guidelines* note that —

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[29] *Business Electronics* and *Monsanto* involved manufacturer terminations of its price-cutting distributors.

[30] [

] *Cf. United States v. New Wrinkle, Inc.*, 342 U.S. 371 (1952) (distinguishing *General Electric* in context of patent pooling arrangement).

> [s]ubsequent lower court decisions have distinguished the *GE* decision in various contexts. *See, e.g., Royal Indus. v. St. Regis Paper Co.*, 420 F.2d 449, 452 (9th Cir. 1969) (observing that *GE* involved a restriction by a patentee who also manufactured the patented product and leaving open the question whether a non-manufacturing patentee may fix the price of the patented product); *Newburgh Moire Co. v. Superior Moire Co.*, 237 F.2d 283, 293–294 (3rd Cir. 1956) (grant of multiple licenses each containing price restrictions does not come within the *GE* doctrine); *Cummer-Graham Co. v. Straight Side Basket Corp.*, 142 F.2d 646, 647 (5th Cir.) (owner of an intellectual property right in a process to manufacture an un-patented product may not fix the sale price of that product), *cert. denied*, 323 U.S. 726 (1944); *Barber-Colman Co. v. National Tool Co.*, 136 F.2d 339, 343–44 (6th Cir. 1943) (same).

Antitrust Guidelines n.33.

We have considered whether *Royal* and *Newburgh Moire* are applicable to the facts of this investigation.[31] Like the patentee in *Royal*, Philips does not manufacture CD-Rs for retail sale.

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[31] *Cumnmer-Graham* is inapposite because the Philips patents at issue include product patents. *See generally* Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley, *IP and Antitrust, An Analysis of Antitrust Principles Applied to Intellectual Property Law* § 31.3c.

However, *Royal* was not decided on the ground that *General Electric* did not apply to a non-manufacturing patentee. 420 F.2d at 453-54 (concurring opinion (J. Carter) would have so found). We decline to rely on dicta from the opinion of the Ninth Circuit in *Royal* to distinguish the holding of the Supreme Court. In *Newburgh Moire*, the Third Circuit held that the *General Electric* immunity applied only to a patentee's grant of a single license with price restrictions and did not immunize a patentee's grant of multiple licenses with such restrictions. [

] However, the *Newburgh Moire* approach has also been subject to criticism. *See, e.g.*, Hovenkamp, Janis, and Lemley § 31.2c ("[l]icensing multiple licenses would ordinarily be thought pro-competitive, and certainly no more anti-competitive than licensing a single licensee, as in [*General Electric*] itself"); 2 William C. Holmes, *Intellectual Properly and Antitrust Law* § 16.06. Consequently, we decline to follow *Newburgh Moire*, and instead apply the rule of *General Electric*.

B. Price Discrimination

1. Positions of the Parties

Respondents argue that "[e]ngaging in price discrimination with anti-competitive effect has been found to be patent misuse *per se*." Respondents' comments at 67 (citing *Western Elec. Co. v. Stewart-*

Warner Corp., 631 F.2d 333 (4th Cir. 1980); [32] *Laitram Corp. v. King Crab, Inc.*, 245 F. Supp. 1019 (D. Alaska 1965); *Bela Seating Co. v. Poloron Prods., Inc.*, 438 F.2d 733 (7th Cir. 1971)). Respondents state that the ALJ found that a group of licensed manufacturers [

] are not required to pay royalties on sales of CD-R/RW discs to certain customers [

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Id. at 67 (citing ID at 181; FF 391, 392). Relying on *Honeywell Inc. v. Sperry Rand Corp.*, 180 U.S.P.Q. 673 (D. Minn. 1973) (unreported in F. Supp.), respondents argue that this discriminatory royalty rate practice constitutes patent misuse because Philips' royalty rates "are substantial cost factors in the production of CD-R/RW discs" and "led to substantial impairment of competition in the CD-R/RW market." *Id.* at 68. They state that the ALJ found that the royalty-free sales gave those manufacturers a competitive advantage over other manufacturers like respondents, who must pay royalties on all sales. *Id.* at 69 (citing FF 403-407). They argue that the competitive advantage enabled the preferred manufacturers to increase their market-share from 30% to 60%, concentrating production in the hands of the preferred manufacturers.

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[32] Respondents' reliance on *Stewart-Warner* is misplaced because that case involved a possible violation of a consent decree requiring non-discriminatory royalties. *See Stewart-Warner*, 631 F.2d at 338-39.

The IA asserts that "none of the precedents [respondents] cite find *per se* patent misuse or even discuss whether the alleged violation is judged under the *per se* rule or under the rule of reason." IA's response at 11. He argues that —

> in the recent *Illinois Tool Works* decision the U.S. Supreme Court briefly discussed the economic rationales for market power in a "tying" case, and found that evidence of price discrimination, even when buttressed by evidence of above-market prices for the tied product, does not lead to a presumption of market power because such price discrimination "also occurs in fully competitive markets." *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 126 S. Ct. 1281, 1292 (2006). OUII does not believe that a type of restraint which is insufficient even to support a finding of market power is sufficient to support a finding of *per se* patent misuse. In other words, restraints of the type that may occur in "fully competitive markets" are not so "plainly anti-competitive" that they can be condemned without a rule of reason analysis. *Compare Illinois Tool Works Inc. v. Independent Ink, Inc.*, 126 S. Ct. at 1292 *with Texaco, Inc.*, 126 S. Ct. at 1279.

IA's response at 12.

Philips asserts that price discrimination is not illegal per se under antitrust or patent misuse law. Philips' response at 14 (citing *USM Corp. v. SPS Techs., Inc.*, 694 F.2d 505, 511 (7th Cir. 1982), and

III P. Areeda & H. Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶721a at 262 (2d ed. 2002)). Philips argues that, in its opinion remanding this investigation, "the Federal Circuit made clear" that Philips' one-rate royalty structure "is an example of efficiency, not discrimination." *Id.* at 14. Philips argues that –

> [t]he ALJ reasoned that the royalty structure fails to account for the cost of other inputs and "requires licensees to buy more patent rights than they want at a price that may well be far higher than what they would choose to pay for *each patent* in a competitive system." ID at 180 (emphasis added). But the Federal Circuit rejected that premise, noting that "grouping licenses in a package" has the "*pro*-competitive effect" of "allowing the parties to price the package based on their estimate of what it is *worth to practice a particular technology*, which is typically much *easier to calculate than* determining the marginal benefit provided by a license to *each individual patent*." *U.S. Philips* [*Corp. v. U.S. Int'l Trade Comm'n*], 424 F.3d at 1193 (emphasis added).

Id. Philips also notes that the IA agreed that Philips' practice of not collecting royalties from manufacturers on discs that are either sold to Philips or its cross-licensees is not discriminatory because Philips was compensated "in kind"rather than "in cash." *Id.* at 15.

Philips states that *Peelers Co. v. Wendt*, 260 F. Supp. 193, 197-98 (W.D. Wash. 1966), and *Laitram Corp. v. King Crab, Inc.*, 244 F. Supp. 9, *modified*, 245 F. Supp. 1019, 1021 (D. Alaska 1965), have been criticized. *Id.* at 15-16 (citing *USM*, 694 F.2d at 512-13). In addition, Philips distinguishes *Peelers* and *Laitram* as involving royalties that "varied because of the licensees' demand, rather than because of any difference in the transactions from the patent holders' point of view." *Id.* at 16. Philips argues that there is no wrongful discrimination because it has not set different royalty rates for "similarly situated" licensees. *Id.* (citing *Honeywell Inc. v. Sperry Rand Corp.*, 180 U.S.P.Q. 673 (D. Minn. 1973) (unreported in F. Supp.)). Rather it "afford[s] different treatment to licensees from whom, on the one hand, it receives payment in the form of royalties and licensees from whom, on the other hand, it receives payment in other forms, including cross-licenses and manufacturing services." *Id.* (citing *Bela Seating*, 438 F.2d at 738 (finding no discrimination and no misuse where patent holder has "rational bases" for granting licenses on different terms)).

2. Analysis

For the reasons discussed below, we have determined to reverse the ALJ's determination that the licensing practices at issue are per se anti-competitive as a form of price discrimination.

The ALJ concluded that the one-rate royalty price for all patents in a package is "inherently economically discriminatory" because the price structure "is totally unrelated to factors that would normally affect the royalty rate of a patent in a

competitive market, such as the associated costs or quality or quantity of the individual patents in the pool." ID at 180-81. He found that the discriminatory nature of the one-rate royalty was "aggravated" by Philips' policy of not collecting royalties from manufacturers on sales of CD-R/RW discs to Philips or its cross-licensees. ID at 182-82. The ALJ's conclusion is inconsistent with the reasoning of the Federal Circuit in its remand decision. *See Philips*, 424 F.3d at 1191-92 (declining to "impos[e] an obligation on the licensor to make some sort of allocation of fees across a group of licenses").

Discriminatory licensing practices were condemned as patent misuse in *Peelers Co. v. Wendt*, 260 F. Supp. 193 (W.D. Wash. 1966), and *Laitram Corp. v. King Crab, Inc.*, 245 F. Supp. 1019 (D. Alaska 1965). *See also Carter-Wallace, Inc. v. United States*, 449 F.2d 1374, 1386–87 (Ct. Cl. 1971) (citing *Peelers* and *Laitram* in denying motion to strike defense of misuse premised on differing royalty rates between different lessees of patent machines). However, more recently, in *USM Corp. v. SPS Technologies, Inc.*, 694 F.2d 505 (7th Cir. 1982), the Seventh Circuit rejected a claim of patent misuse based on a differential royalty schedule in a license agreement. In an opinion by Judge Posner, the Seventh Circuit held that the claim "must be evaluated under antitrust principles" and noted that price discrimination was not illegal per se under antitrust law. *USM*, 694 F.2d at 512 ("there is no antitrust prohibition against a patent owner's using price discrimination to maximize his income from the patent" (citing *Bela Seating*, 438 F.2d at 738)). Judge Posner's review of the case law concerning a patent

owner's use of price discrimination included the *Laitram* and *Peelers* cases, which the court characterized as "[t]he furthest the courts have gone in condemning patent price discrimination under antitrust principles," and noted that the decisions have been criticized. *Id* The *Honeywell* district court opinion, which pre-dates *USM*, is not persuasive authority on the issue of whether discriminatory licensing constitutes per se misuse given that the district court there found no misuse and no antitrust violation because the proponent of the defense failed to prove, *inter alia*, "substantial impairment of competition in the relevant market." *See Honeywell*, 180 U.S.P.Q. at 763. Consequently, we agree with complainant that a claim of patent misuse per se cannot be premised on a theory of price discrimination, but should be analyzed under the rule of reason.[33]

III. "Rule of Reason" Analysis of Patent Misuse

The ALJ also found patent misuse under the rule of reason standard. ID at 152-53, 182-220. He stated that, under the rule of reason, a court must determine whether the challenged "practice is 'reasonably within the patent grant, *i.e.*, *that* it relates to subject matter within the scope of the patent claims.'" ID at 182-83 (quoting *Virginia Panel*

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[33] "The only case cited by the ALJ on this issue was the dissenting opinion of Justice Stevens in *Broadcast Music*. *See* ID at 180-82. Justice Stevens applied a rule of reason analysis. 441 U.S. at 25-26 (Stevens, J., dissenting).

Corp. v. MAC Panel Co., 133 F.3d 860, 869 (Fed. Cir. 1997) (internal citation omitted)). A practice that does not have the effect of extending the patentee's statutory rights . . . with an anti-competitive effect'" "cannot constitute patent misuse under the rule of reason." ID at 183 (quoting *Virginia Panel*, 133 F.3d at 869). He stated that "under the rule of reason the challenger of the alleged anti-competitive practice 'bears the initial burden of showing that the challenged action has had an *actual* adverse effect on competition as a whole in the relevant market'" (ID at 183 (quoting *Capital Imaging Assocs. v. Mohawk Valley Medial Assocs.*, 996 F.2d 537, 543 (2d Cir 1993) (emphasis in original), citing *Atlantic Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328, 343-44 (1990)), 213-14), and the "'rule of reason analysis requires a determination of whether an agreement is on balance an unreasonable restraint of trade, that is, whether its anti-competitive effects outweigh its pro-competitive effects'" (ID at 183 (quoting *Columbia Broad. Sys., Inc. v. Am. Soc'y of Composers, Authors & Publishers*, 620 F.2d 930, 934 (2d Cir. 1980)), 213-14).

In his final ID, the ALJ found that Philips' CD-R/RW patent license agreements included as so-called "essential" patents for manufacturing CD-R/RW discs according to the Orange Book standard twelve patents that were actually nonessential (ID at 185-213), and concluded that this practice constituted an extension of complainant's statutory right to exclude under its patents (ID at 183–85). The ALJ found that including nonessential patents in the license agreements had the anti-competitive effect of foreclosing competition in alternative

technology that competes with the technology covered by a nonessential patent that was included as a so-called "essential" patent. ID at 196–213. The ALJ also found that the royalty rate mechanism of the patent pooling arrangements is an unreasonable restraint of trade[34] ID at 213-20. In so doing, the ALJ relied upon his per se analysis, stating that "[t]he reason given earlier herein as to why the royalty rate mechanism of the pools is anti-competitive, and therefore illegal *per se*, apply equally well to finding that mechanism anti-competitive under the 'rule of reason.'" ID at 213. The ALJ discussed certain pro-competitive benefits identified by Philips, but he found that, on balance, the anti-competitive effects far outweighed those pro-competitive effects. ID at 213-19.

In its earlier final determination, the Commission affirmed the ALJ's determination of patent misuse under the rule of reason standard based on his analysis of and findings as to a tying arrangement between licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards and licenses to other patents that are not essential to that activity. Comm'n op. at 4-5. The Commission adopted the ALJ's analysis and conclusions with respect to four of the twelve patents (*viz.*, the Farla '692 patent, the Yamamoto '719 patent, the Lockhoff '219 patent, and the Iwasaki '149 patent), but took no position on the ALJ's analysis of the remaining eight patents (*viz.*,

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[34] In its earlier final determination, the Commission took no position on this portion of the final ID. Comm'n op. at 51 and n.32.

U.S. Patent Nos. 4,962,493 ("the Kramer '493 patent"); 4,807,209 ("the Kramer '209 patent"); 4,942,565 ("the Lagadec '565 patent"); 5,126,994 ("the Ogawa '994 patent"); 5,978,351 ("the Spruit '351 patent"); 5,835,462 ("the Mimnagh '462 patent"); 4,990,388 ("the Hamada '388 patent"); and 5,090,009 ("the Hamada '009 patent")). Comm'n op. at 50-51 (March 25, 2005).

The Federal Circuit reversed the Commission's final determination that the asserted patents are unenforceable for patent misuse under the rule of reason standard. The Federal Circuit held that the evidence was insufficient to support finding that Philips' package licenses had the anti-competitive effect of foreclosing competition from competitors offering alternatives to the Farla, Iwasaki, Yamamoto, or Lockhoff patents. *Philips*, 424 F.3d at 1198. The court also held that the Commission erred in concluding that the package licensing agreements are more anti-competitive than pro-competitive because it "did not acknowledge the problems with licensing patents individually" and "failed to consider the efficiencies that package licensing may produce." *Id.*

A. Legal Standard Under Rule of Reason

1. Position of the Parties

Quoting *Windsurfing International, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001-1002 (Fed. Cir. 1986), respondents contend that a licensing arrangement that "tends to restrain competition unlawfully in an appropriately defined relevant market" may

constitute patent misuse under the rule of reason. Respondents' comments at 72. They argue that proof of patent misuse does not require proof of actual harm to competition. *Id.* at 72-73 (citing *Berlenbach v. Anderson & Thompson Ski Co.*, 329 F.2d 782, 784 (9th Cir. 1964); *Jack Winter, Inc. v. Koratron Co.*, 375 F. Supp. 1, 71 (N.D. Cal. 1974); *Columbus Auto. Corp. v. Oldberg Mfg. Co.*, 264 F. Supp. 779, 783, 785 (D. Colo. 1977), *aff'd*, 387 F.2d 643 (10th Cir. 1968); *F.C. Russell Co. v. Consumers Insulation Co.*, 226 F.2d 373, 376 (3d Cir. 1955)).

2. Responses

Philips argues that respondents' position "is flatly inconsistent" with the views of the Federal Circuit in its opinion remanding this investigation. Philips' response at 17. Philips contends that the court recognized that "proof of real competitive harm" is required for a fmding of misuse under the rule of reason, and states that that requirement "reflects well-established principles" developed in antitrust law. *Id.* at 17-18. Philips argues that "even the ALJ recognized that a conclusion of misuse under the rule of reason, like a showing of an antitrust violation under the same standard, requires proof of '"*actual* adverse effect on competition as a whole in the relevant market."' Philips' response at 18 (quoting ID at 213-14).

Although the IA does not specifically address respondents' argument, he takes the position that "the Federal Circuit's statement of the applicable rules is directly on point, and that no further analysis is necessary." IA's response at 14 *(citing Philips*, 424 F.3d at 1184-85, 1197-98).

3. Analysis

In summarizing the patent misuse defense in its opinion remanding this investigation, the Federal Circuit stated that "[t]he 'key inquiry is whether, by imposing conditions that derive their force from the patent, the patentee has impermissibly broadened the scope of the patent grant *with anti-competitive effect*.'" *Philips*, 424 F.3d at 1184 (quoting *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998)) (emphasis added). The court also stated that "under the rule of reason, a practice is impermissible only if its *effect is* to restrain competition in a relevant market."[35] *Id.* at 1185 (citing *Monsanto Co. v. McFarling*, 363 F.3d 1336, 1341 (Fed. Cir. 2004); *Windsurfing*, 782 F.2d at 1001-02) (emphasis added). In other cases, the court has indicated that the rule of reason standard to be applied is that developed in antitrust law. *See, e.g., Virginia Panel*, 133 F.3d at 869 (quoting *State Oil Co. v. Kahn*, 522 U.S. 3, 10 (1997)); *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 706 (Fed. Cir. 1992) (citing *inter alia Cont'l T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 58-59 (1977)). To the extent that respondents' arguments with respect to the *Berlenbach, Jack Winter,* and *Columbus Automotive* cases are understood as urging

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[35] The court stated that "[i]n order to show that a tying arrangement is per se unlawful, a complaining party must demonstrate that it links two separate products *and has an anti-competitive effect in the market for the second product*." *Philips*, 424 F.3d at 1193-94 (emphasis added); *see also id.* at 1195 (noting "insufficient evidence" that inclusion of nonessential patents in the patent licensing packages "had an actual anti-competitive effect").

us to adopt a different course, we reject those arguments.

As noted, the Federal Circuit has indicated that the standard developed in antitrust law is to be applied in analyzing patent misuse allegations under the rule of reason. Thus, for a restriction that is not "reasonably within the patent grant" *(Virginia Panel*, 133 F.3d at 869), the Federal Circuit would likely not require a greater showing of anti-competitive effect than is required to support an antitrust violation under the rule of reason.[36] Consequently, while the proponent of the rule of reason patent misuse defense bears the initial burden of demonstrating an adverse effect on competition as a whole in the relevant market, the requisite adverse effect may be shown directly (through evidence of an actual adverse effect on competition) or indirectly (through evidence of market power and market structure). *See, e.g., K.M.B. Warehouse Distribs., Inc. v. Walker Mfg. Co.*, 61 F.3d 123, 127-30 (2d Cir. 1995). As discussed below, respondents have failed to carry their burden of demonstrating the requisite adverse effect.

B. Anti-Competitive Effects of Philips' Licensing Practices

1. Introduction

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[36] The Federal Circuit has stated that "[p]atent misuse is viewed as a broader wrong than antitrust violation" and "may arise when the conditions of antitrust violation are not met." *C.R. Bard Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998).

Respondents argue that, added together, the anti-competitive effects stemming from Philips' licensing practices "far outweigh any possible countervailing pro-competitive effects." Respondents' comments at 79. Respondents identify the following anti-competitive effects: (1) evidence of price fixing *(id.* at 77-80), (2) discriminatory pricing that allowed "preferred manufacturers (who don't pay royalties)" to double their market share (*id.* at 80-81), (3) contractually obligating licensees to pay royalties for patents after the patents expire *(id.* at 81-82), (4) "prevent[ing] licensees from improving or competing with the patents in the patent pool" through a narrow license grant that restricts licensees to use the subject patents to practice the Orange Book standard *(id.* at 83), and (5) foreclosing competition by tying non-essential patents owned by Sony and Taiyo Yuden into the CD-F/RW pool licenses *(id.* at 83-102).

Philips contends that respondents have not produced the required evidence of harm to competition. Philips further argues that, even if respondents could show the requisite harm to competition, any such harm would be outweighed by the pro-competitive effects of the package licenses recognized by the Federal Circuit.

The IA takes the position that the inclusion of the Sony Lagadec patent in the CD-R/RW patent pools constitutes patent misuse under the rule of reason standard. He contends that "[u]nder the pool licenses, Philips used its genuinely essential patents to force licensees to

pay royalties to Sony" for the Lagadec patent, which cannot be used to create an Orange Book compliant disc. IA's response at 2. He argues that "[t]his practice has the anti-competitive effects of raising prices, reducing output, and foreclosing competition." *Id.* He does not support the other theories of competitive harm advanced by respondents.

In sections B.2 through B.6, *infra*, we discuss respondents' theories of anti-competitive harm, and in section B.7, we discuss the IA's argument concerning the Lagadec patent.

2. Price Fixing

a. Respondents' Position

Respondents argue that Philips harmed competition by combining with its horizontal competitors to set royalty rates under the CD-R/RW pool licenses that "were substantially higher than industry norms (ID at 401-402 (FF 337, 343)), and higher than the total rate that could have been charged for separate licenses to the respective CD-R/RW patents of the pool members ID at 372, 443-444 (FF 111, 578, 581-582)." Respondents' comments at 77.

They assert that "Philips further harmed competition by burdening manufacturers with those high royalty rates, and effectively setting a price floor for sales of CD-R/RW discs." *Id.* They argue that the minimum royalty "fixed prices at higher levels than if the pool had not been formed and licenses were originally available individually

[from] each patentee." *Id.* at 80 (citing ID at 176-79). Respondents characterize the CD-R/RW pool licenses as "lack[ing] any mechanism to adjust the royalty rates given the precipitous drop in the selling price of CD-R and CD-RW discs." *Id.* They argue that —

> in the face of declining net selling prices — a decline from [ ] cents in 1997 to [ ] cents in 2003 (ID at 394 (FF 260)) — and repeated requests from licensees to renegotiate the royalty rate, Philips simply refused and allowed the anti-competitive consequences of its licensing practices to continue. Philips' arrogance is born from the confidence of a market player with both power and leverage obtained from collusion with horizontal competitors.

Id.[37]

b. Responses

Philips asserts that "it is axiomatic that it is harm to competition, not disadvantage to particular competitors, that must be shown to make out a rule-of-reason violation." Philips' response at 19 (citing *Brooke Group Ltd. v. Brown & Williamson*

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[37] In connection with respondents' per se price-fixing theories *supra*, we noted the specific arguments raised by respondents in support of their contention that the pool licenses included competing patents or eliminated competition between Philips and its co-licensors. We found those arguments unpersuasive.

Tobacco Corp., 509 U.S. 209, 224 (1993); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977); *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346, 1356 (Fed. Cir. 1999); and *Virginia Panel*, 133 F.3d at 873). Philips argues that —

> [e]ven if it were true that individual-company licenses negotiated by Princo and Gigastorage would have been cheaper in aggregate than the joint licenses (Princo and Gigastorage never actually took individual licenses from all three patent holders), that would show at most that two participants in the licensing market were worse off when they operated under joint licenses. It would say little, if anything, about the effect of the joint licenses on competition as a whole in a market with dozens of buyers. The terms of their individual agreements, standing alone, do not come close to meeting respondents' burden of showing overall competitive harm in the market.

Id. at 20.

Philips contends that its expert (McCarthy) analyzed the royalty rates in certain CD-R licenses under Sony's patents. According to Philips, that analysis of other manufacturers' experiences establishes that "royalties under the joint licenses were sometimes substantially lower than, sometimes higher than, and sometimes about the same as the sum of the royalties for single-company licenses." *Id.* at 20 and n.8.

Philips further argues that higher royalties for a joint package would not establish harm to competition because higher royalties "could reflect the benefits of the package, such as reduced transaction costs and freedom to operate." *Id.* at 19. Philips asserts that "there is no legal basis for condemning packages of patents that are not economic substitutes for one another on the ground that the package price is too high." *Id.* (citing *Verizon. Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP.*, 540 U.S. 398, 407 (2004) ("The mere possession of monopoly power, and the concomitant charging of monopoly prices . . . is an important element of the free-market system")).

Philips contends that respondents have failed to offer any evidence of anti-competitive effects in the product market. Philips' response at 21. Philips states that from 1997 to 2002, the worldwide supply of CD-R discs increased and prices fell, with a similar pattern for CD-RW discs. *Id.* at 21-22 (citing FF 598, 211).

c. Analysis

For the reasons discussed below, we have determined to reverse the ALJ's determination that the fixed royalty rate set by Philips and its co-licensors for the joint licenses constitutes patent misuse under the rule of reason based on a theory of price fixing because the record does not establish the requisite anti-competitive effect in a relevant market.

The ALJ stated that it was "particularly anti-competitive" that the amount of the fixed royalty

rate chosen by Philips was "necessarily arbitrary." ID at 216. At several points in the ID, the ALJ stated that the amount of the fixed royalty rate in the joint licenses was too high. *See, e.g.*, ID at 174 ("Philips and its licensor-partners have maintained royalty rates above competitive levels for a significant period of time"); ID at 177-78 (royalty rates "excessive" and "exceed[] industry norms"); ID at 216-19 (pool licensors were able to obtain higher royalties for their patents using the pool license than licensors could obtain for their patents when licensing separately). The ALJ provides two rationales for finding the fixed royalty rate too high. First, relying primarily on the testimony of respondents' expert (Smith), the ALJ found that the fixed royalty rate represents a higher fraction of the selling price for CD-R/RWs than is normal for the information handling industry and that the royalty rates "are excessive enough to force a manufacturer taking such a license to be priced out of the market for CD-R/RW discs and to leave the industry." ID at 177-80. On cross-examination the witness admitted that the only information available to him concerning the costs or profits of licensees under the CD-R/RW licenses pertained to Princo and Gigastorage. Trans. (Smith) at 1440-41, ID at 177 n.107. In light of that admission, the testimony identifies at most an adverse impact on two competitors, rather than demonstrating the requisite market-wide impact on CD-R/RW manufacturers generally. [38] The testimony

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[38] Although the ALJ notes that Philips "has not produced any countering evidence to show that any other manufacturing licensee of the pool who is paying the full royalty rate is making

concerning normal royalties in the information handling industry generally is insufficient, in and of itself, to establish the competitive level of royalties in the specific technology licensing markets at issue. *See Cal. Dental Ass'n v. FTC*, 224 F.3d 942, 957 (9th Cir. 2000) (noting that an antitrust plaintiff is generally required "to show some relevant data from the precise market at issue in the litigation").

Second, the ALJ found that, after the Taiwan Fair Trade Commission ordered the pool licensors to license their patents separately, pool licensors "Sony and Taiyo Yuden dropped their royalties substantially."[39] ID at 216. In their current briefing, respondents argue that the royalty rate for the pool license set by Philips is higher than the sum of the royalties under separate licenses from each of the pool licensors. Respondents' comments at 56 (citing ID at 174), 59 n.19. Respondents rely on a comparison of (1) the royalty rates in the pool

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a profit on the sale of its CD-R/RWs" (ID at 177 n.107), respondents bear the initial burden of demonstrating an adverse effect on competition under the rule of reason. *See, e.g., Gregory v. Fort Bridger Rendezvous Ass'n*, 448 F.3d 1195, 1205-06 (10th Cir. 2006); *Geneva Pharms. Tech. Corp. v. Barr Labs. Inc.*, 386 F.3d 485, 506-07 (2d Cir. 2004); *Bhan v. NME Hosps., Inc.*, 929 F.2d 1404, 1413 (9th Cir. 1991); *see also Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1341 (Fed. Cir. 2006) ("under the rule of reason, [the proponent of the patent misuse defense] is required to show that the challenged contracts had an actual adverse effect on competition").

[39] The ALJ also found that when Philips licensed its CD-R patents separately, it received a larger royalty for its patents than its share of the pool royalty. ID at 178.

licenses with (2) the royalty rates in the Philips-only licenses in combination with the royalty rates that Gigastorage obtained in separate licenses with Taiyo Yuden (RX-1866) and Sony (RX-1466). *See* ID at 174. However, in our view, the royalty rates that a [

] Therefore, we agree with Philips that such a comparison does not show the anti-competitive effect of the package license on the market as a whole, but only shows [

] The demonstration of harm to a single competitor, of course, does not establish harm to competition.

The record contains CD-R licenses that [ ] (FF 350; RX-1466) obtained from Sony for Sony's patents.[

] *See* Respondents' reply brief on review at 76-77 (discussing app. A); Respondents' comments at 59 n.19; Philips' response at 20 nn.7, 8. However, the evidence in the record concerning the royalty rates under separate licenses from Taiyo Yuden is limited to two CD-R licenses: [

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[40] The ALJ apparently did not rely on the royalty rates in those licenses for his findings.

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Although respondents have argued that [

] *See* Respondents' reply on Commission review at 77; *cf.* Respondents' comments at 59 n.19. [

] respondents have shown *at most* [

][41] However, in our view, evidence concerning respondents' own experiences negotiating separate licenses is insufficient to demonstrate the requisite market-wide anti-competitive effect.

As to the product market, respondents have not identified evidence that would establish that Philips' licenses produced higher prices in the product market than would have existed without

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[41] Although the record contains [

] the record does not include such a license to [ ]. At the hearing, L. Chen, President of Princo America Corp., testified that Princo was discussing a separate license with Sony, but no agreement had yet been reached. Trans. (L. Chen) at 1003. [

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those licenses. In their current briefing, respondents argue that Philips' refusal to renegotiate royalty rates in the face of declining net selling prices for CD-R discs set a price floor in the product market. *See* Respondents' comments at 79-80. However, respondents have not pointed to any finding by the ALJ that Philips' royalties have set a price floor in the product market for CD-R/RW discs. Indeed, the ALJ found that product prices have continued to fall. *See, e.g.*, ID at 173 (stating that the prices of CD-R/RW discs "continued their inevitable pattern of falling" even as Philips increased the number of manufacturers licensed under the pools); FF 211, 219, 598.

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3. Price Discrimination

a. Respondents' Position

Respondents contend that the ALJ found that the "royalty rates are such a large percentage of market prices, that manufacturers would lose money if they paid the CD-R/RW Pool License royalty on every disc." Respondents' comments at 78 (citing ID at 412 (FF 403-404)), 81 (citing ID at 177 and 391 (FF 231)). They argue that "Philips treated similarly situated CD manufacturers differently" because manufacturers selling CD-R or CD-RW discs to Philips and certain other firms pay no royalties on those sales. *Id.* at 80 (citing ID at 180-82). Respondents argue that —

> [t]he obvious anti-competitive consequence of a discriminatory pricing policy is that those preferred manufacturers (who don't pay royalties) tighten their grip on the market; effectively squeezing out competition. Such was the case here, where preferred manufacturers doubled their market share to over 60% of the worldwide production of CD-R discs. (RX-2377; Bratic Tr. at 1762-63.) Such an anti-competitive result is obvious when one considers that some licensees such as[ ] pay a royalty on as little as 10% of their sales, thereby effectively affording them a 90% royalty rate discount in comparison to Respondents and other licensees who are required to pay "full price."

Id. at 81.[42]

b. Responses

Philips argues that respondents have not established harm to competition flowing from its practice of offering royalty-free licenses to suppliers and cross-licensees because "harm to particular competitors is not harm to competition." Philips' response at 22-23. Philips contends that respondents' market share data "do[es] not show any clear relationship between royalty-free treatment by Philips and market-share gains." *Id.* (noting that [ ] expanded its share of the CD-R market from 2001 to 2002 while paying royalties to Philips (RX-3003, RX-3004) and that the infringing respondents paid no royalties while allegedly losing market share). Philips argues that "[w]ithout data taking account of the shifting fortunes of all manufacturers, there is no way to assess whether a royalty-free license from Philips or some other factor or combination of factors that add up to more efficient production explain any particular manufacturer's success in the global CD-R/RW market." *Id.*

c. Analysis

"[U]nder the rule of reason, a practice is impermissible only if its effect is to restrain

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[42] Elsewhere in their submission, respondents state that "the preferred manufacturers who can make royalty free sales have driven out competition and assumed a dominant 60% market share." Respondents' comments at 78 (citing ID at 412 (FF 406)).

competition in a relevant market." *Philips*, 424 F.3d at 1185 (citing *Monsanto Co. v. McFarling*, 363 F.3d 1336, 1341 (Fed. Cir. 2004); *Windsurfing Intil, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986)). "[I]ncreased concentration, as shown by a change in relative market shares" may indicate anti-competitive effects. *Kestenbaum v. Falstaff Brewing Corp.*, 575 F.2d 564, 571 (5th Cir. 1978); *see Pool Water Prods. v. Olin Corp.*, 258 F.3d 1024, 1036 (9th Cir. 2001) ("[i]ncreased concentration may make anti-competitive activity more likely, but in and of itself it does not amount to antitrust injury"). However, "it is axiomatic that the antitrust laws were passed for 'the protection of competition, not competitors.'" *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993) (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962)); *Pool Water*, 258 F.3d at 1036 ("decrease in one competitor's market share . . . affects competitors, not competition").

In support of their statement that "the preferred manufacturers who can make royalty free sales have driven out competition and assumed a dominant 60% market share" (Respondents' comments at 78), respondents cite the ALJ's findings of fact, specifically FF 406 OD at 412). However, that finding of fact (FF 406) and the evidence cited by the ALJ relates to Gigastorage's net selling price and manufacturing costs, rather than to market shares. Respondents also cite the testimony of their witness (Bratic), that the preferred manufacturers [ ] their share of the market for manufacture of CD-R discs worldwide from about [

] Respondents' comments at 81 (citing Trans. (Bratic) at 1762-63; RX-2377). The combined market share from 1997 to 2002 of the five companies as shown in RX-2377 is based on data drawn from exhibit 10 to Dr. McCarthy's report (CX-330). Trans. (Bratic) at 1762:15-1763:19, 1754-56. [

] [43] *See* CX-330. Bratic's testimony that five companies gained market share at the expense of other firms does not establish the requisite market-wide anti-competitive effect. *See Gregory v. Fort Bridger Rendezvous Ass'n*, 448 F.3d 1195, 1205-06 (10th Cir. 2006); *Coffey v. Healthtrust, Inc.*, 955 F.2d 1388, 1393 (10th Cir. 1992).

The ALJ found that the number of manufacturers of CD-R discs peaked in 2000. ID at 172. However, he also found that "worldwide demand, supply and manufacturing capacity for CD-R discs grew rapidly during the years 2000-2002 to the point where, in 2002, there was a worldwide demand for nearly six billion CD-R diics and an available supply of nearly 8 billion discs out of a total manufacturing capacity of over 10 billion discs." FF 210. As pointed out by complainant's economics expert, "when prices fall and there's excess capacity in a market, we see manufacturers

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[43] The specific firms vary from year to year.

exiting the market. That's what you'd predict a competitive market would do." Trans. (McCarthy) at 1965:8-11. Moreover, even if the manufacturing licensees are subject to different average royalty rates depending on their customer *mix (i.e.*, the percentage of sales to Philips and its cross-licensees), no "invidious discrimination" can arise where there is a rational basis for any difference. *See Bela Seating Co. v. Poloron Prods., Inc.*, 438 F.2d 733, 738 (7th Cir. 1971).

Bela Seating involved a patent misuse claim premised on a licensee's (Poloron's) allegation that the patentee offered a licence under its patent requiring a royalty of $ 0.75 per chair produced under the license although another licensee (Hampden) paid a royalty of only $ 0.175 per chair. 438 F.2d at 738. The Seventh Circuit rejected the claim, stating that where "there were rational bases upon which [the patentee] could refuse to grant Poloron a license on the same terms as it granted Hampden's license, there is no invidious discrimination so as to offend the anti-trust law." 438 F.2d at 738. The Seventh Circuit stated that —

> [t]he district court . . . found that [the patentee] Bela had sought a higher royalty rate from Poloron because it had determined that the earlier license rate [to Hampden] was "unreasonably low;" there is no showing that Bela intended to deter

> competition with Poloron's competitors.

438 F.2d at 739. Under the standard of *Bela Seating*, Philips has articulated a rational basis for the effective average royalty rate differences alleged by respondents. For this reason as well, we believe that respondents have not established the harm to competition required to prove patent misuse under the rule of reason based on a theory of price discrimination.

4. Expired Patents

a. Respondents' Position

Relying on *Brulotte v. Thys Co.*, 379 U.S. 29 (1964), respondents assert that it is misuse per se to collect royalties for an expired patent. Respondents' comments at 81. However, respondents state that —

> [s]ince Judge Harris did not find such a *per se* violation, [r]espondents only include this Philips licensing practice here in the rule of reason test. Philips has expanded the temporal scope of the patent grant with lasting anti-competitive effect—that tips the balance even further in favor of patent misuse.

Id. at 81-82.

Respondents state that the last essential patent in the CD-R joint license that is owned by

Philips expires in 2014, while the last essential patent owned by co-licensors Sony or Taiyo Yuden expire in 2009. They also state that the last essential patent in the CD-RW joint license that is owned by Philips expires in 2017, while the last essential patent owned by co-licensor Sony expires in 2009. Thus, they contend that from 2009 until the last patent in each package expires, licensees are obligated under the joint licenses to pay royalties that will be given to Sony (CD-R/RW) and Taiyo Yuden (CD-R) even though those companies no longer have essential patents in the joint licenses. Respondents argue that requiring licensees to pay Sony's share of the joint license royalty rate after Sony's essential patents have expired imposes "a significant financial burden" on licensee-manufacturers that would ultimately be paid by consumers. Respondents' comments at 82. They contend that "[c]harging for expired patents disadvantages manufacturers and consumers" and "negatively impacts the market place." *Id*

b. Responses

Philips asserts that this argument "was first raised by an *amicus curiae* before the Federal Circuit."[44] Philips' response at 29. Philips further

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[44] Philips' assertion is inconsistent with an earlier statement in its own response. *See* Philips' response at 5 n.1 (noting in a parenthetical stating that patent expiration issues were addressed on pages 40-41 of its post-hearing brief on patent misuse (filed July 14, 2003), and on pages 23-24 of its post-hearing reply brief on patent misuse (filed July 21, 2003)). Furthermore, respondents raised this issue before the ALJ *See* Respondents' post-hearing brief on patent misuse at 43

argues that, even if the issue is properly presented, respondents' reliance on *Brulotte* is misplaced because the Supreme Court "expressly allowed patentees to continue to require royalties on package licenses until the last patent in the package expires." *Id* at 29 (citing *Brulotte,* 379 U.S. at 30, 33-34). Philips identifies several lower court decisions as recognizing that royalties may be due until the last patent in a package expires. *Id.* at 30 (citing *Hull v. Brunswick Corp.*, 704 F.2d 1195, 1202-03 (10th Cir. 1983); *Beckman Instruments, Inc. v. Technical Dev. Corp.*, 433 F.2d 55, 61 (7th Cir. 1970); *McCullough Tool Co. v. Well Surveys, Inc.*, 343 F.2d 381, 409-10 (10th Cir. 1965); *Bayer AG v. Housey Pharms., Inc.*, 228 F. Supp. 2d 467, 472 (D. Del. 2002); *GAF Corp. v. Eastman Kodak Co.*, 519 F. Supp. 1203, 1236 (S.D.N.Y. 1981)). Philips also notes two cases to the contrary. *Id.* (citing *Scheiber v. Dolby Labs., Inc.*, 293 F.3d 1014, 1017 (7th Cir. 2002); *Rocform Corp. v. Acitelli-Standard Concrete Wall, Inc.*, 367 F.2d 678, 680-81 (6th Cir. 1966)).

Philips argues that, "even if respondents' complaints otherwise had substance, they are not ripe now, when all of the patents remain valid and binding." *Id.* at 31. They assert that "it is not clear from the record that Philips will continue to divide the royalties from the pool licenses with Sony and Taiyo Yuden after their patents expire." *Id.*

(arguing that because Sony's patents in the CD-R pool expire before Philips' patents in the pool, "the pool has the anti-competitive effect of enabling Philips to collect royalties on behalf of Sony even after its patents have expired").

The IA notes that respondents' theory that "under the rule of reason, the patent pools are anti-competitive because they require the payment of royalties after patents expire . . . may arguably be meritorious." IA's response at 25 n.14 (citing *Philips*, 424 F.3d at 1195 n.8). Nonetheless, he argues that respondents' theory is not within the scope of the remand because this theory was not addressed by the ALJ or the Commission, and respondents did not petition for review on this issue.

c. Analysis

We disagree with the IA's position that respondents have waived their argument that Philips' charging royalties for expired patents in its CD-R/RW pool licenses has an anti-competitive effect. The Commission determined to review the patent misuse analysis in the final ID in its entirety. Respondents preserved this argument by raising it before the Commission on review. *See* Respondents' submission on review at 34, 49 (Jan. 9, 2004).

Respondents contend that requiring manufacturers to pay royalties for Sony's or Taiyo Yuden's expired patents "disadvantages manufacturers and consumers" and "negatively impacts the market place." Respondents' comments at 82. However, in this case, respondents concede that the joint licenses at issue all include Sony and Taiyo Yuden patents that do not expire until 2009. We also agree with Philips that the record does not demonstrate that "Philips will continue to divide the royalties from the pool licenses with Sony and Taiyo Yuden after their patents expire." *See* Philips' response at 31. Consequently, respondents have not

established the actual anti-competitive effect required for finding a patent misuse violation under the rule of reason.[45]

5. Restrictive Use

b. Respondents' Position

Respondents state that the joint CD-R/RW and the Philips-only CD-R/RW licenses only allow the licensees to use the patents to practice the Orange Book standard. Respondents' comments at 83 (citing RX-1903C, RX-1904C, RX-992C, RX-843C). They argue that by restricting licensees to making Orange Book compliant discs, licensees are prevented from developing "competitive products that are based on, or derived from the Orange Book." *Id.* Thus, licensees are unable to improve the product and are "lock[ed]" into the Orange Book technology. *Id*

b. Responses

Philips states that the "ALJ correctly found that Philips' CD-R/RW licenses contain a provision that limits the licensees' use of the patents to manufacturing CD-R or CD-RW discs that comply with the Orange Book standard." Philips' response at 31 (citing ID at 370). Philips characterizes respondents' "attack on the field-of-use restriction" as "frivolous" because such restrictions have "long

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[45] As noted, respondents have clearly presented their argument as a rule of reason, rather than a per se, patent misuse claim. *See* Respondents' comments at 81.

been uncontroversial." *Id.* at 31 (citing *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 181 (1938); *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F3d 1322, 1327 (Fed. Cir. 2000); *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 706 (Fed. Cir. 1992)).

The IA notes that, while respondents' limited license grant theory may have merit, that theory is not within the scope of the remand because it was not addressed by the ALJ or the Commission and respondents did not petition for review.

c. Analysis

We have determined to reject respondents' argument that the field-of-use restriction in Philips' licenses are anti-competitive under the rule of reason. While respondents did raise this issue before the ALJ *(see* Respondents' post-hearing brief on misuse at 45), they subsequently waived this argument by failing to present it to the Commission on review. Even if the issue were properly before us, restrictions on use are within the scope of the patent grant and thus cannot constitute patent misuse. *Gen. Talking Pictures*, 304 U.S at 181; *Mallinckrodt*, 976 F.2d at 706, 708.

6. Respondents' Tying Arguments

a. Respondents' Position

Respondents argue that Philips tied non-essential patents of Sony and Taiyo Yuden into the joint CD-R licenses and tied non-essential patents of Sony and Ricoh into the joint CD-RW

licenses. Respondents' comments at 78-79. They assert that including the non-essential patents of Sony, Taiyo Yuden, and Ricoh in the joint licenses had the anti-competitive effect of eliminating the "economic incentive" of the co-licensors to compete with Philips. *Id.* Respondents' arguments with respect to two Sony patents and two Taiyo Yuden patents are discussed below. However, respondents' discussion does not include any substantive argument with respect to Ricoh's patents. *See* Respondents' comments at 88-101.

Respondents contend that, at the time of the hearing, the joint CD-R license included only two so-called "essential" Sony patents (Ogawa '994 and Lagadec '565) and two so-called "essential" Taiyo Yuden patents (Hamada '009 and Hamada '388).[46] They argue that, even using the "new standard of 'commercially feasible alternative' developed by the Federal Circuit "to determine essentiality," none of the four patents is essential to practice the Orange Book. *Id.* at 89, 91-101. According to respondents, by including the four non-essential patents in the joint CD-R licenses, "Philips ensured that Sony and Taiyo Yuden would not develop alternative or competing technologies." *Id* at 89. Respondents further argue, that at the time of the hearing, the CD-RW joint license included only one so-called "essential" Sony

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[46] The ALJ found each of these four patents to be non-essential, but the Commission took no position on those findings in its earlier final determination. ID at 197-201, 209-13; Comm'n op. at 50-51.

patent (Lagadec '565), which they argue is not essential to practice the Orange Book. Thus, they contend that by including the non-essential Lagadec patent in the CD-RW joint license, Philips again ensured that Sony would not compete with Philips. *Id.* According to respondents, Philips used this tying arrangement to "lock[] up its horizontal competitors, Sony and Taiyo Yuden." *Id.* at 91. Respondents contend that —

> Judge Harris correctly concluded that tying the non-essential Sony and Taiyo Yuden patents was patent misuse. (ID at 197, 209, 212.) By including non-essential Sony and Taiyo Yuden patents in the CD-R/RW Pool Licenses, Philips prevented Sony and Taiyo Yuden from competing with it. In fact, the DOJ predicted and warned against this anti-competitive conduct in its Business Review Letter:
>
> > If the Licensors owned patent rights that could be licensed and used in competition with each other, they might have an economic incentive to utilize a patent pool to eliminate competition among them. A pool that served <u>that</u> purpose would raise serious competitive concerns.

Id. at 91 (quoting CX-358 at 9) (internal quotations omitted by respondents) (underlining added by respondents)..

Respondents contend that the Sony Lagadec '565 illustrates Philips' tying of non-essential patents of its co-licensors into the joint licenses, which has the anti-competitive effect of preventing the co-licensor patentee (here, Sony) from competing with Philips. Thus, respondents contend that —

> [i]n the course of developing the recordable CD standards, representatives from Sony and Philips met and considered competing approaches to encoding control information into the recording track on the optical disc. The alternatives they were selecting from were Sony's Lagadec '565 (digital modulation of the track) and Philips' '825 and '856 patents (analog frequency modulation). (ID at 198 (FF 464); Mons Tr. at 394:19-409:2.) Despite concluding that the Orange Book should be written to use the . . . approach of Philips' '825 and '856 patents, Philips included Sony's . . . Lagadec patent in the pool. (ID at 198-199; Mons Tr. at 408:33-409:2.) Accordingly, Philips improperly included both the Lagadec '565 patent along with Philips' '825 and '856 patents in the CD-R and CD-RW pool licenses, even though Sony's approach had been rejected. Because Philips and Sony were choosing between alternative technologies to perform the same function, both the Sony Lagadec '565 patent and the Philips '825 and '856 patents could not be "essential."

> In fact, Philips' witness, Dr. Hesselink, proved that the Lagadec '565 patent is not essential. Dr. Hesselink testified at trial that the Philips '825 patent was not anticipated by the Lagadec '565 patent because "the Lagadec '565 patent constitutes completely different technology that does not work well according to the Orange Book standards." (empahsis in the original) (ID at 200.) Judge Harris found that Dr. Hesselink's testimony "renders Lagadec extraneous to the Orange Book, and necessitates a finding that it is non-essential to the pool." (ID at 200.)

Respondents' comments at 89-90; *see also id.* at 92-94. Respondents go on to argue that, under the "commercially feasible alternative" test articulated by the Federal Circuit, the Sony Lagadec '565 patent is non-essential because "the commercially feasible alternative is the Philips technology (the '825 and '856 patents) incorporated into the Orange Book and used worldwide by licensees." *Id.* at 90; *see also id.* at 94.

Respondents further argue that the Hamada '009 patent, the Hamada '388 patent, and the Ogawa '994 patent are non-essential to manufacture Orange Book compliant CD-R discs. With respect to the Hamada '009 patent, respondents rely on the testimony of Philips' witness (Rubenstein) to support their argument that the Mitsubishi "Verbatim" CD-R disc tested by ETA-Optik

evidences a "commercially feasible alternative" recording layer technology for CD-R discs that does not practice the Hamada '009 patent. *Id.* at 95. Respondents note that Philips relied on Rubenstein's testimony (Trans. at 2268) to argue that "the Verbatim disc would not work with the Orange Book compliant systems because one of the disc parameters, reflectivity, was not sufficient to meet the Orange Book standards." *Id.* at 96. They contend that Philips' argument is contrary to the evidence, reasoning as follows:

> [Philips'] argument, however, is directly refuted by the evidence that the Verbatim disc: (1) was commercially available (Dr. Rubenstein purchased this disc at a New York-area retail outlet (Rubenstein Tr. at 2251) and (2) represented, according to Dr. Rubenstein, approximately 1.8% of the CD-R market at the time he performed his analysis (Rubenstein Tr. at 2268). In 2001, when Dr. Rubenstein tested the Verbatim disc, there were approximately 6 billion CD-R discs manufactured (ID at 214); therefore 1.8% of this market represented roughly 100 million discs. It strains credibility (and common sense), to argue that Mitsubishi would capture 1.8% of the market and manufacture roughly 100 million CD-R discs that would not work with existing CD players and recorders. Dr. Rubenstein's analysis clearly demonstrates that a "commercially viable alternative," and Orange Book compliant alternative recording layer technology existed.

> Therefore, the Taiyo Yuden Hamada '009 patent is not essential to manufacture Orange Book compliant CD-R discs.

Respondents' comments at 96. Respondents assert that the anti-competitive effect of tying the non-essential Hamada patents to the CD-R pool "eliminated" Taiyo Yuden as a "potential competitor to Philips." *Id at* 96.

Respondents argue that Taiyo Yuden's Hamada '388 patent is also not essential to manufacture Orange Book compliant CD-R discs because the record discloses several commercially feasible alternatives to the claimed invention: the Mitsui Toatsu Chemical (MTC) phthalocyanine recording layer technology, the Bayer AG photo addressable polymer (PAP) material, the tellurium-based material disclosed by Philips in an IEEE Spectrum article from 1979, and Matsushita's rewritable phase change technology (PD discs). Respondents assert that "[t]hese commercial alternatives were competitively disadvantaged by the improper inclusion of the '388 patent in the CD-R Pool License."[47] *Id* at 99. Respondents also assert that including the two Hamada patents in the CD-R joint license "provided Taiyo Yuden with a lucrative cash flow, thereby inducing Taiyo Yuden not to compete with Philips." *Id*

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[47] Respondents do not provide any citations to the record in support of this assertion. *See* Respondents' comments at 99.

Respondents argue that Sony's Ogawa '994 patent is not essential to the manufacture of Orange Book compliant CD-R discs. Respondents characterize the Ogawa '994 patent as "directed to a method of setting the correct power of a laser beam to write information on an optical disc." *Id* at 99. They state that, although the Ogawa '994 patent relates to optimum power control (OPC) methods, the OPC methods described in the Orange Book are recommended, rather than mandatory. *Id* at 99 (citing ID at 212; RX-407C (Orange Book) section 1.4 remark 3 (stating that OPC can be freely chosen), section B.14 (stating that OPC disclosed is a possible implementation); Trans. (McLaughlin) at 1516-19).

Respondents argue that another company, [ ] developed an alternative method for determining optimum writing power that does not practice the Ogawa '994 patent and that is fully compatible with Orange Book discs. *Id.* at 100 (citing FF 484, FF 485, ID at 203, Trans. (McLaughlin) at 1518-20).[48] Respondents assert that the ALJ correctly found [ ] OPC and write strategy method" to be "an economically viable alternative for performing write strategy that does not infringe" the Ogawa patent. *Id.* at 101 (citing ID at 212-213, FF 449). Respondents note that [ ] licensing of its technology to [

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[48] Respondents appear to cite portions of the ALJ's finding of fact and final ID that pertain to the Farla patent, rather than the Ogawa patent. *Cf.* ID at 438 (FF 537-539, FF 541-545), FF 454, ID at 212-13.

] (FF 450, 451, Trans. (McLaughlin) at 1563-67) "is proof that the technology was viable." *Id* at 101.

Respondents argue that Philips' tying of the Sony Ogawa '994 patent into the CD-R pool license harmed competition in two ways. First, by providing royalties to Sony for this non-essential patent (and the non-essential Sony Lagadec '565 patent), Philips "ensur[ed] that Sony would not develop an alternative, competing product with its non-essential patents." *Id* at 101. Second, as found by the ALJ, [ ] alternative technology was disadvantaged because "when [ ] tried to license its technology, the target companies would not consider the [ ] technology, even though superior, because they already had a license under the Philips patent pool." *Id.* at 101 (citing FF 455, 456, Trans. (McLaughlin) at 1572:4-15, 1574:6-20, 1575:15-1576:2).

Respondents also argue, more broadly, that Philips unreasonably foreclosed competition by including non-essential and essential patents in the same package license and "forcing licensees to accept both essential and non-essential patents as part of a license to practice CD-R and CD-RW technology." *Id.* at 84, 83-88. Respondents contend that –

> [l]icensors of alternative technology have a significantly more difficult time competing with the technology covered by the non-essential CD-R and CD-RW patents in the Philips licenses. (CX-355 [MPEG-LA U.S. Dep't of Justice business

> review letter]; CX-357 [3CDVD U.S. Dep't of Justice business review letter]; Bratic Tr. at 1630:5-18, 1804:11-19.) The economics are against licensors of alternative technology because potential licensees have already received licenses to competing technology from Philips. Licensees receive the non-essential patents with their Philips' license and use that technology (which they have been forced to pay for) as opposed to alternate, non-licensed technology that is also available to them. (Bratic Tr. at 1693:14-1694:5; 1804:11-19.) The financial incentive created by Philips' licensing practices to use the non-essential patents unreasonably forecloses competition with alternative technology and unfairly disadvantages such competitors.

Id. at 84-85. Respondents argue that the ALJ found that the inclusion of non-essential patents in the CD-R/RW pools suppressed emerging alternative technologies. *Id.* at 86 (citing ID at 185, 190, 191). Thus, they contend that including non-essential patents in the pools —

> adds leverage to the licensing value of both the patent and the pool by permitting the patent holder and its fellow pool members to demand from licensees the high pool royalty rate that the subject patent might not be able to achieve on its own. This result is inherently anti-competitive because it

> tends to raise royalty rates above competitive levels . . . [T]he anti-competitive pressure that the pool exerts on outside competitors is strong because licensees are wedded to the pool technology and are reluctant to add to their royalty costs by using the competitor's non-pool innovation in place of what is licensed through the pool.

Id. at 86 (quoting ID at 191).

Relying on *Hazeltine Research, Inc. v. Zenith Radio Corp.*, 388 F.2d 25, 33 (7th Cir. 1967), and *Grid Systems Corp. v. Texas Instruments, Inc.*, 771 F. Supp. 1033, 1038 (N.D. Cal. 1991), they argue that "the offer of non-essential patents as part of a single-price package of mandatory patents leaves licensees little or no incentive to spend additional money to purchase licenses to or develop alternative technologies." *Id.* at 86. They contend that the ALJ found that the financial incentive created by Philips tying "unfairly disadvantaged alternative technologies." *Id.* at 87 (citing ID at 185 ("Adding [non-essential] patents to the pools adds leverage to the patent's bargaining position in licensing negotiations with manufacturers, and unfairly competes with existing or emerging alternate technologies")).

Respondents argue that the ALJ correctly found that technically and economically viable alternative technologies exist that do not infringe the non-essential patents (ID at 422 (FF 449-454), 429 (FF 482-485, 499, 500, 502), and that "competitors have been harmed with respect to

licensing their alternative technologies (ID at 423 (FF 455, 456))." *Id* at 487. They further contend that —

> [a] Philips' witness even testified that Philips was aware that its non-essential patents might be competing with other companies' patents. (ID at 422 (FF 448).) Testimony was also presented that there was no incentive to pay extra money for licenses to alternative technologies when they were already paying exorbitant royalties to Philips. (ID at 447 (FF 600); Bratic Tr. at 1693-94.)

Id. at 87.

They also contend that the ALJ correctly found that including non-essential patents in the Philips-only package license for no additional royalty is also patent misuse. *Id.* at 87-88 (citing ID at 219-20).

Respondents assert that the "commercially feasible" technologies identified as alternatives to the Sony and Taiyo Yuden patents "were improperly restrained by Philips' tying," *viz.*, [ ] (OPC) technology (alternative technology to Sony's Ogawa '994 patent); [ ] the tellurium material of Philips described in an IEEE Spectrum article, and [ ] discs (alternative technology to Taiyo Yuden's Hamada '388 patent); and the [ ] technology (alternative technology to Taiyo Yuden's Hamada '009 patent). *Id.* at 88 (citing ID at 423-436 (FF 449-456, 482-85, 493-94, 498-502, 520, 526-30).

Finally, respondents assert that the tying of non-essential patents ultimately harms competition in the CD-R/RW product market because the "stifl[ing]" of innovation in alternative technologies prevent consumers from benefitting from better technology. *Id.* at 88 (citing Trans. (Bratic) at 1693:14-1694:5).

b. Responses

Philips characterizes respondents' tying argument as based on the Taiyo Yuden and Sony patents previously unaddressed by the Commission *(viz.,* the Hamada'388 and '009 patents, the Ogawa '994 patent, and the Lagadec '565 patent) and suggest that respondents "apparently concede[]" that the four other patents previously unaddressed by the Commission (viz., the Philips' U.S. Patent Nos. 4,962,493; 4,807,209; 5,978,351; 5,835,462 ("the Kramer '493 and '209 patents," "the Spruit '351 patent," and "the Mimnagh '462 patent," respectively)) "are essential or otherwise have no bearing on alleged misuse." Philips' response at 23.

As to respondents' argument that Philips harmed competition by tying the four non-essential patents of Sony and Taiyo Yuden into the pool licenses, Philips responds that the four patents are essential, rather than non-essential as found by the ALJ Philips states that it previously argued to the Commission that the ALJ erred in finding those patents to be non-essential. It asserts that under the standards "for assessing commercial viability and market demand in determining essentiality" adopted by the Federal Circuit, no basis exists for finding any of the four patents to be non-essential.

Id. at 24. In any event, even if the Commission adopted the ALJ's position that the four patents were non-essential, Philips contends that respondents cannot prove harm to competition.

First, Philips argues that "there can be no harm to competition unless licensees are being coerced to use or pay for the putatively nonessential patents." *Id* at 24. Philips contends that the Federal Circuit rejected respondents' argument that Philips coerced its licensees or "'forced' [licensees] to 'take' anything from Philips that they did not want." *Id* at 24 (quoting *Philips*, 424 F.3d at 1190). Philips further argues that the court rejected arguments that (1) "Philips was asking licensees to pay extra for any nonessential patents" and that (2) "allowing licensees to use additional patents at no additional cost could amount to improper foreclosure of competition."

Id (citing *Philips*, 424 F.3d at 1190, 1191).

Second, Philips argues that —

> proof of harm to competition requires evidence of two facts: (i) that there were "commercially viable substitutes" for the supposedly nonessential patent *"that disc manufacturers wished to use"* and (ii) that disc manufacturers were prevented or dissuaded from using their preferred alternative by Philips' licenses. *U.S. Philips*, 424 F.3d at 1195 (emphasis added [by complainant Philips]); *cf. Jefferson Parish Hosp. Dist. v. Hyde*, 466 U.S. 1,16 (1984) (if purchasers "would not

> have otherwise bought [an allegedly tied product] even from another seller in the tied product market, there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed."). Without the first of these showings there is no evidence of competition in a relevant market that might have been harmed. Without the second, there is no evidence of injury to competition in such a market.

Id. at 24-25 (emphasis in original). Philips argues that respondents cannot demonstrate harm to competition from the Sony or Taiyo Yuden patents under this standard. With respect to Sony's Lagadec '565 patent, Philips contends that respondents "offer no evidence that the '565 is a commercially viable alternative to Philips' ['825 or '856 patents]" and "no evidence that any manufacturer sought to develop or acquire any alternative to the '825 or '856 and was prevented from doing so by the existence of the joint license." *Id.* at 26. As to Sony's Ogawa '994 patent, Philips asserts that respondents rely only on the testimony of their expert (McLaughlin) concerning alternative technology developed by Calimetrics, Inc. Philips contends that the Federal Circuit previously found that McLaughlin's testimony did not establish that Philips' licensees wished to use alternative technology developed by Calimetrics, Inc. or that the licensees were dissuaded from such use by Philips' licenses. *Id.* at 26 (citing *Philips*, 424 F.3d at 1195, 1198).

As to Taiyo Yuden's Hamada patents, Philips argues that the only technological alternatives to the '388 patent identified by respondents are "theoretical or test-lab" alternatives that do not meet the "commercially viable" substitute requirement. *Id* at 28. Philips argues that the Bayer AG technology and its own tellurium technology "were no more than theoretical possibilities described in research articles." *Id.* Philips asserts that respondents fail to offer evidence that the disc developed by Mitsui Toatsu Chemical was ever marketed and fail to offer evidence that the discs made by Matiushita use an alternative to the Hamada '388.

Philips contends that the Verbatim disc was not Orange Book compliant. Philips further argues that, rather than offering evidence that competition for the Verbatim alternative was foreclosed by Philips' licenses, respondents instead rely on evidence that the Verbatim disc accounted for "approximately 1.8% of the worldwide CD-R market." *Id. see* Respondents' comments at 96 (stating that, in 2001, the Verbatim disc represented about 1.8% of the CD-R market (citing Trans. (Rubenstein) at 2268)). Philips contends that "[i]f that is true, it demonstrates that manufacturers were able to use an alternative if they chose to do so, not that Philips' license structure foreclosed that option." Philips' response at 29.

c. Analysis

We have determined to reverse the ALJ's findings that the inclusion of twelve non-

essential patents in Philips' licenses had the anti-competitive effect of foreclosing competition from alternative technologies that competes with the technology covered by a nonessential patent.

In his final ID, the ALJ found that the CD-R/RW patent pools included as so-called essential patents twelve patents that are not essential. ID at 196-97. In its previous final determination, the Commission adopted the ALJ's analysis and conclusions that the Farla '692 patent, the Yamamoto '719 patent, the Lockhoff '219 patent, and the Iwasaki '149 patent are non-essential. Comm'n op. at 50. The Commission's previous final determination that Philips' licensing practices constitute patent misuse under the rule of reason standard was based on the finding that the inclusion of the Farla '692 and Iwasaki '149 patents had the anti-competitive effect of foreclosing an alternative technology developed by Calimetrics. Comm'n op. at 50-52, 61-62 (citing FF 454-456).[49] The Federal Circuit reversed. *Philips*, 424 F.3d at 1197-99.

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[49] The Commission also broadly found that "the ability of owners of competing technology to license their technology to CD-R/RW manufacturers is impaired by the requirement that the manufacturers license the nonessential patents, which is a disincentive for them to license alternative, substitute technologies for the nonessential patents." Comm'n op. at 62 (citing *inter alia* FF 177, 179 (finding that a one-rate royalty regardless of the number of patents included in a package reduces a licensee's incentive to license technologies that compete with non-essential patents included in the package)).

The Federal Circuit found the Commission's rule of reason analysis flawed because of a lack of evidence in support of the Commission's finding of anti-competitive effect on competitors offering alternative technologies. *Philips*, 424 F.3d at 1198. The Court stated that —

> as we have already held, the evidence did not show that including those patents in the patent packages had a negative effect on commercially available technology. The Commission assumed that there was a foreclosure of competition because compact disc manufacturers would be induced to accept licenses to the technology covered by the Farla and Iwasaki patents and therefore would be unwilling to consider alternatives. As noted, however, there was no evidence before the Commission that any manufacturer had actually refused to consider alternatives to the technology covered by those patents or for that matter that any commercially viable alternative actually existed.

Id. Earlier in its opinion, the Federal Circuit discussed the Farla and Iwasaki patents as follows:

The approach taken by the Federal Circuit in its opinion remanding this investigation is inconsistent with such reasoning. *See Philips*, 424 F.3d at 1190-91 (stating that a "for Philips to charge the same royalty for its essential patents that it charges for its patent packages and to offer the nonessential patents for free" "plainly would not be unlawful").

the Farla and Iwasaki patents, cover a method of controlling the recording of information onto compact discs, *i.e.*, *a* "write strategy," including an "optimum power control procedure." The Commission found that another company, Calimetrics, Inc., had developed a commercially viable, alternative method of performing the write strategy and the optimum power control procedure that is not covered by the Farla and Iwasaki patents. In making that finding, the Commission relied solely on the testimony of Dr. Stephen McLaughlin, Calimetrics's principal scientist, who had helped to create the technology in question. Dr. McLaughlin testified that Calimetrics had created a general. write strategy, *that "in* the development of [that] technology [Calimetrics] determined that this write strategy was applicable to CD-R and CD-RW systems;" and that the company has "spent an enormous amount of effort promoting [its] idea . . . ." While that testimony was sufficient to support the Commission's finding that there was an alternative technology to the Farla and Iwasaki patents, it did not show that the Calimetrics technology was an alternative that Philips's licensees wished to use in place of the technology covered by the Farla and Iwasaki patents.

Philips, 424 F.3d at 1195 (footnote omitted). According to the Court, where "the evidence did not show that there were commercially viable substitutes for the . . . [nonessential] patents that disc manufacturers wished to use in making compact discs compliant with the Orange Book standards," the evidence was "insufficient" that the inclusion of those patents "had an actual anti-competitive effect" *Id.* The evidence of anti-competitive effect premised on the foreclosure of competition from alternative technologies that compete with the technology covered by any of the twelve patents deemed "nonessential" by the ALJ does not meet this standard.

The Yamamoto '719 and the Lockhoff '219 Patents

In its opinion remanding this investigation, the Federal Circuit found that the evidence did not support the Commission's findings that commercially viable alternative technologies existed for the technology claimed in the Yamamoto and Lockhoff patents. *Philips*, 424 F.3d at 1196. As the Federal Circuit held that the Commission erred in finding that commercially viable alternative technologies existed, the standard articulated by the Court for demonstrating the anti-competitive harm required for finding patent misuse under the rule of reason based on the foreclosure of competition in alternative technologies cannot be met with respect to the Yamamoto or Lockhoff patents. *See Philips*, 424 F.3d at 1197-98.

The Lagadec '565 Patent

Respondents assert that, under the Federal Circuit "test for non-essential, Lagadec is non-essential" because the "commercially feasible alternative is the Philips technology (the '825 and '856 patents) incorporated into the Orange Book and used worldwide by licensees." Respondents' comments at 90, 94. Respondents' argument is fundamentally flawed because the '825 and '856 patents are inside, not outside, the package.[50] *See* 3C DVD Business Review Letter (Dec. 16, 1998) (CX-357) ("Inclusion in the pool of one of the [substitute] patents, which the pool would convey along with the essential patents, could in certain cases unreasonably foreclose the competing patents from use by manufacturers; because the manufacturers would obtain a license to the one patent with the pool, they might choose not to license any of the competing patents, even if they otherwise would regard the competitive patents as superior").

Respondents also argue that, by including the Lagadec '565 patent in the pools with the '825 and '856 patents, Philips prevented competition from Sony.[51] Respondents' comments at 91 (citing

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[50] Where the "commercially feasible alternative" technology (Philips' '825 and '856 patents) is "used worldwide by licensees" (Respondents' comments at 90), that competing alternative technology is clearly not foreclosed.

[51] Respondents assert that the same anti-competitive effect flows from including the Ogawa '994 patent in the CD-R pool license. They assert that "as discussed previously with respect to Sony's Lagadec '565 patent, by tying these two Sony patents into the CD-R Pool License, Philips enabled Sony to collect vast

6C DVD Business Review Letter (June 10, 1999) (CX-358)), 94. The passage in the Business Review Letter quoted by respondents reads as follows:

> If the Licensors owned patent rights that could be licensed and used in competition with each other, they might have an economic incentive to utilize a patent pool to eliminate competition among them. A pool that served that purpose "would raise serious competitive concerns." In combining such substitute patents, the pool could serve as a price-fixing mechanism, ultimately raising the price of products and services that utilize the pooled patents.

6C DVD Business Review Letter (CX-358) at 9; *accord* 3C DVD Business Review Letter (CX-357) at ("Inclusion in the pool of two or more of those [substitute] patents would risk turning the pool into a price-fixing mechanism"). We discussed respondents' price-fixing theories concerning the Lagadec patent in section II.A *supra* of this opinion.

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royalties, thereby ensuring that Sony would not develop an alternative, competing product with its non-essential patents." Respondents' comments at 101. However, respondents have not identified any patents included in the licenses at issue as allegedly competing with the Ogawa '994 patent. Respondents' assertion of anti-competitive effect is not persuasive because they have not identified evidence establishing that, if Sony's Ogawa '994 and Lagadec '565 patents were not included in the licenses, Sony likely would have developed technologies that competed against the Orange Book standard in a relevant market.

As stated above, we are not persuaded by these theories because the record does not support a finding that the Lagadec '565 patent competes with the '825 or '856 patents. Respondents also failed to identify evidence demonstrating that, absent the pooling arrangements, the pool licensors would have competed in the technology licensing market. In subsection IILB.7 *infra* of this opinion, we discuss the IA's closely related argument, which we also do not find persuasive.

The Ogawa '994 Patent

The ALJ found that the Calimetrics OPC and write strategy method is a commercially viable substitute that does not infringe the Ogawa '994 patent. ID at 212; FF 449, 450, 453, 454, 542, 551. He found that the Philips patent pool adversely affected the ability of Calimetrics to license its alternative OPC and write strategy technology. FF 455, 456. Under the standard articulated by the Federal Circuit in its opinion remanding this investigation, the evidence is insufficient to prove the anti-competitive effect of foreclosing competition in the alternative technology that competes with the technology covered by the Ogawa '994 patent As noted above, the Federal Circuit found the evidence of record did not support the Commission's finding that the inclusion of the Farla '692 and Iwasaki '149 patents had the anti-competitive effect of foreclosing an alternative technology developed by Calimetrics. Comm'n op. at 50-52, 61-62 (citing FF 454-456). The evidence of foreclosure from the inclusion of the

Ogawa '994 patent is the same as that previously found insufficient by the Federal Circuit.[52]

The Hamada '388 and '009 Patents

The ALJ found that the Verbatim CD-R disc manufactured by Mitsubishi is a commercially viable substitute that is not covered by the '009 patent.[53] ID at 209-11. He found that including the Hamada '009 patent had the anti-competitive effect of foreclosing competition from such substitute technologies. ID at 211. In support of his finding of foreclosure of competition, the ALJ relied only upon a statement in a business review letter. *Id.* (3C DVD Business Review Letter (CX-357) at 10 ("the inclusion of patent rights for which there were viable substitutes . . . could injure competition by foreclosing such substitutes").

Under the standard articulated by the Federal Circuit in its opinion remanding this

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[52] For the same reason, the record does not support finding an anti-competitive effect on competition from the foreclosure of commercially available alternatives to the Spruit '351 patent. *See* ID at 212. It is unnecessary for us to determine whether the ALJ correctly found that the Calimetrics OPC and write strategy method is a commercially viable alternative technology that does not infringe the Ogawa '994 or Spruit '351 patents, because the Federal Circuit has found the evidence of foreclosure of the Calimetrics technology to be insufficient.

[53] As noted, Philips argues that the Verbatim disc is not a commercially viable, Orange Book compliant alternative. The ALJ made no express finding that the Verbatim disc was Orange Book compliant.

investigation, even assuming *arguendo* that the ALJ's finding that the Verbatim disc is a commercially viable substitute is correct, [54] the evidence is insufficient to prove the anti-competitive effect of foreclosing competition in the alternative technology (the Verbatim CD-R disc) that competes with the technology covered by the Hamada '009 patent. There is testimony in the record that the market share of the Mitsubishi disc was "approximately 1.7 to 1.8 percent." Trans. (Rubenstein) at 2268. Although Rubenstein also testified that the disc "was an old design that was phased out" (Trans. (Rubenstein) at 2268), we are unaware of any evidence that would link that phasing out (and associated decline in market share) to the inclusion of the Hamada '009 patent in the CD-R pool.

The ALJ also found that three alternative technologies existed that are not covered by the Hamada '388 patent, viz., technologies by [ ], and Philips' tellurium-based material. [55] FF 527-530. Although the ALJ

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[54] We find it unnecessary to decide this contested issue.

[55] "In their briefing to the Commission, respondents also argue that certain technology developed by [ ] alternative technology that does not practice the '388 patent. Respondents' comments at 98-99. Respondents' argument is defective because (1) the ALJ made no findings concerning this alternative and (2) respondents failed to provide any citations to the record in support of their argument. Respondents also waived this argument by failing timely to present it to the ALJ. *See* Respondents' post-hearing brief on patent misuse at 18-19 (mentioning alternative technologies of [ ] and Philips, but not discussing Matsushita technology).

specifically found that the Hamada '388 patent has "commercially viable substitutes" (FF 523), his findings of fact concerning those alternative technologies do not identify any evidence that those technologies are commercially viable. *See* FF 523-530; Trans. (McLaughlin) at 1539:9-1545:1; RX-1418.4C; RX-1418.5C. Moreover, respondents have not identified any additional evidence that would support their contention that those technologies are commercially viable. *See* Respondents' comments at 97-99 (citing RX-1418.4C, RX-1418.5C, RX-1418.6, RX-181). As Philips correctly notes, respondents have not offered evidence that the Mitsui Toatsu alternative was ever marketed. Philips correctly characterizes its own tellurium-based material and the Bayer AG technology as "theoretical possibilities described in research articles." *See* Philips' response at 28 (referring to RX-181 (article from IEEE Spectrum) and RX-1418.6 (article from Japanese Journal of Applied Physics)). The ALJ's finding of fact that "commercially viable substitutes" exist (FF 523) is clearly erroneous because it lacks evidentiary support. Under the standard articulated by the Federal Circuit in its opinion remanding this investigation, the evidence is insufficient to prove the anti-competitive effect of foreclosing competition because it does not show a negative effect on commercially available technology that competes with the technology covered by the Hamada '388 patent. *See Philips*, 424 F.3d at 1197-98.

In their current briefing, respondents assert that by including the Hamada '388 and '009 patents, Philips eliminated Taiyo Yuden as a potential competitor by "locking" Taiyo Yuden into the CD-R

pool. *Id.* at 96, 99. We find respondents' conclusory argument unpersuasive because respondents failed to identify evidence establishing that, if the Hamada patents were not included in the licenses, Philips and Taiyo Yuden likely would have competed in a relevant market. Moreover, respondents have not attempted to identify any patent in the CD-R pool that competes with either of the Hamada patents.

The Iwasaki '149 Patent

In its previous final determination, the Commission adopted the ALJ's analysis and conclusions as to the Iwasaki '149 patent and found patent misuse under a rule of reason standard. Comm'n op. at 50-51. The Federal Circuit reversed. *Philips*, 424 F.3d at 1197-99. The Federal Circuit found the Commission's rule of reason analysis flawed because the evidence in the record did not support the Commission's finding of anti-competitive effect on competitors offering alternative technologies to the Iwasaki '149 patent. *Id.* at 1198.

Although respondents assert that including Ricoh's non-essential patents in the joint licenses had the anti-competitive effect of eliminating Ricoh's economic incentive to compete with Philips, they have failed to support that assertion with any evidence or argument. *See* Respondents' comments at 78-79. Such conclusory assertions of anti-competitive

effect are insufficient to support a finding of patent misuse under the rule of reason.[56]

The Kramer '493 and '209 Patents, and the Mimnagh '462 Patent

In his final ID, the ALJ did not identify any commercially available alternative technology to that covered by either of the Kramer patents or the Mimnagh '462 patent. *See* ID at 207-09, 212-13. Consequently, under the standard articulated by the Federal Circuit in its opinion remanding this investigation, the evidence is insufficient to prove an anti-competitive effect of foreclosing competition in alternative technology that competes with the technology covered by any of these, three patents. *See Philips*, 424 F.3d at 1197-98.

7. The IA's Argument Regarding the Lagadec '565 Patent

a. IA's Position

The IA asserts that the Federal Circuit affirmed the Commission's previous determination that Philips has market power in the relevant market, *viz.*, the United States market for licensing the essential U.S. patents for the manufacture of CD-R/RW discs in compliance with Orange Book standards. He states that the ALJ correctly found

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[56] As respondents make no mention of the Farla '692 patent in their tying argument, they apparently concede that the Federal Circuit remand opinion is conclusive as to any such claims concerning the Farla '692 patent.

Sony's Lagadec '565 patent to be non-essential to the manufacture of Orange Book-compliant discs. The IA argues that the Lagadec patent is an alternative technology to the Philips '856 patent, which is essential to practice the Orange Book standard, and that the Lagadec patent "cannot be used to create an Orange Book-compliant CD." IA's response at 19; *see id.* at 19-24. The IA contends that because the Lagadec '565 is the only U.S. patent owned by Sony that is listed as "essential" in the CD-RW patent pool, "Sony receives royalties for the Lagadec patent . . . despite the fact that the licensees cannot use the patent for Orange Book-Compliant CD-RWs.[57] *Id.* at 26.

Relying on *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 135 (1969), the IA

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[57] The IA characterizes the situation as "largely the same for the CD-R pool." IA's response at 26 n.15. Although he concedes that "Sony does have an essential patent in the CD-R pool," he argues that "this patent has relatively little economic value (and certainly does not explain why Sony receives [ ] of the total royalty)." *Id.* In earlier briefing to the Commission, the IA stated that Sony owned three patents in the list of essential patents in the CD-R pool: the Lagadec '565 patent, the Ogawa '994 patent, and the Tezuka '850 patent. Response of the Office of Unfair Import Investigations to Philips' Petition for Review at 40-41. The IA took the position that the ALJ correctly determined that the Lagadec '565 and Ogawa '994 patents are non-essential. *Id* at 31-36, 3-40. He noted that respondents' expert McLaughlin did not express an opinion as to whether the Tezuka '850 patent is essential to practice the Orange Book standard patent. *Id* at 41 n.27. In 2001, Dr. Rubenstein opined that the Tezuka patent was essential for CD-R discs. CX-317C (letter from Kenneth Rubenstein to Mr. Fumihiko Moriya, Deputy General Manager, Sony Corporation (July 31, 2001)).

argues that Philips' use of its market power in the essential patents to force licensees to the essential CD-RW patents "to pay royalties to Sony on products that did not use the Sony Lagadec patent broadens the scope of the patent rights." *Id.* at 26-27. He also argues that such forcing of licensees to pay royalties to Sony for the Lagadec patent is a tying arrangement, reasoning as follows:

> The Federal Circuit found that Philips' actions in tying the non-essential patents to its essential patents was not patent misuse because the non-essential patents were "free." *U.S. Philips Corp.*, 424 F.3d at 1190-92. However, the Federal Circuit also stated: "Of course, in a tying case if the evidence shows that the price of a bundled product reflects any of the cost of the tied product, 'customers are purchasing the tied product, even if it is touted as being free.'" *Id.* at 1191 n.4, *quoting Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Professional Publications*, 63 F.3d 1540, 1548 (10th Ci. 1995), *cert. denied*, 516 U.S. 1044 (1996). Unlike the non-essential patents that the Federal Circuit addressed, the Sony Lagadec patent is clearly not "free." Licensees are paying royalties to Sony under the CD-RW pool license. (RX-1155C, at PH076072). Yet the Sony Lagadec patent is the only U.S. patent owned by Sony that the CD-RW pool claims is "essential." (*See, e.g.*, RX-903C, at

> PH002753; RX-723C, at PH092410). The Sony Lagadec patent is similarly listed as an "essential" patent for the CD-R pool. . . . And, once again, the evidence shows that the Sony patent is not only non-essential, but is actually incompatible with the Orange Book standard. . . . Even under the narrow definition of improper tying set out in the Federal Circuit's decision, this constitutes patent misuse—Philips used its market power (its control over the essential patents) to force licensees to purchase *and pay for* the Sony Lagadec patent.

IA's response at 27-28 (emphasis in original). The IA notes that although "the Federal Circuit opinion held that while a licensor may charge a fixed rate for a package of its essential and non-essential patents, *see U.S. Philips Corp.*, 424 F.3d at 1190-91, it provides no support for the proposition that a licensor may collect a royalty when it possesses *no* patents essential to practice the standard." *Id.* at 28 n.16 (emphasis in original).

The IA identifies three anti-competitive effects as flowing from the Lagadec tying arrangement, including higher prices and reduced output. *Id.* at 28-32 (citing *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1489 (Fed. Cir. 1986) (identifying higher prices and reduced output as "hallmarks of anti-competitive behavior"); *Wilk v. Am. Med. Ass'n*, 895 F.2d 352, 360-62 (7th Cir. 1990); *Oltz v. St. Peter's Cmty. Hosp.*, 861 F.2d 1440, 1448 (9th Cir.

1988)). First, he argues that the tying "raise[d] the price that manufacturers paid to license" Sony's patents. *Id.* at 29-30 (noting that the ALJ found that when the joint licensors separately offered packages of their own patents, the royalty Sony received was much less than its share of the pool royalty (citing ID at 174, 216, 391 (FF 232), 441-43 (FF 564-575)). He also adopts respondents' argument that an "actual anti-competitive effect" has been demonstrated because the total royalty for all of the pool patents when licensed separately from the co-licensors is lower than the pool royalty. *Id.* at 30.

Second, he asserts that the world-wide CD-R/RW market share of Taiwanese manufacturers rose from 60% to 80% once the pools were broken up in Taiwan and the manufacturers could obtain patent licenses from each of the co-licensors. Thus, "production increased . . . impl[ying] that the patent pools decreased output." *Id.* at 30-31 (cross-referencing IA's reply brief on Commission review at 21-22).

Third, he argues that Philips "secured Sony's adherence to the CD-R/RW system and the Orange Book standard" by forcing licensees "to pay supra-competitive royalties to Sony." *Id.* at 31 (citing ID at 219 ("Efforts on the part of pool members to have their patents included in the pool as 'essential as a practical matter,' even though those patents do not cover anything in the Orange Book, is merely an attempt to forestall competing technologies or to attain a royalty for the patent that is higher than the patent could garner from licensees by itself")). According to the IA, "Philips included Sony in the

pool not because Sony brought anything necessary to the CD-R/RW technology, but rather because Sony is a major player in the industry, whose cooperation Philips wanted." *Id.* (cross-referencing Response of Office of Unfair Import Investigations to Philips' Petition for Review at 42-43).

b. Responses

Philips characterizes the IA's argument as relying on certain essential, but incorrect, propositions: (1) manufacturers do not need a license to the Lagadec '565 patent, and cannot use that patent, to manufacture CD-R or CD-RW discs; (2) including the Lagadec patent raised the royalty for the CD-RW joint license; and (3) including the Lagadec patent foreclosed new technologies by discouraging Sony from competing with the Orange Book technology.

According to Philips, including the Lagadec '565 patent in the patent pools was reasonable. Although Philips agrees that the digital modulation method disclosed in the Lagadec '565 patent is not used in Orange Book-compliant discs, Philips argues that claim 6 of the Lagadec patent reads on such discs because that claim is not limited to the digital modulation method disclosed in the Lagadec specification. Philips' reply at 2 (cross-referencing Philips' response at 25 n.11 and Philips' brief on Commission review, appendix B at 8-12). Philips characterizes the IA's argument as wrongly "focus[ing] entirely on the patent's specification, perhaps on the implicit assumption that the claims can be limited by the specification." *Id* at 2 (noting that "[t]he specification of a patent can be used to

ascertain the meaning of a claim term, but it cannot be used to read limitations into a claim" (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323-24 (Fed. Cir. 2005) (en banc))). Relying on the opinion of the Federal Circuit remanding this investigation, Philips contends that —

> [t]he Federal Circuit held that licensees benefit from the inclusion in patent pools of patents for which they *might* need a license because inclusion of such patents removes "uncertainties regarding what patents might be needed." *U.S. Philips*, 424 F.3d at 1198; *see also id.*, at 1192-93. Thus, the question before the Commission, in determining whether it was reasonable for Philips and the other licensors to include the Lagadec '565 patent in the joint licenses (along with other possibly, if not clearly, essential patents), is whether a manufacturer paying for the right to make CD-R/RW discs would want assurance that the '565 would not be asserted against it. If discs made by the manufacturer would, on the face of the matter, infringe a claim of the Lagadec '565 — as Dr. Rubenstein [Philips' patent expert] concluded they would — then, as the [IA] previously explained, "it stands to reason that licensees" would want to have that patent included in the pool. [IA's] Brief in Response to Petition for Review [at] 40 (Nov. 13, 2003). It is noteworthy in this context that the [IA] cites no evidence that any licensee ever

> asked to have the Lagadec '565 removed from any of the pools, or from any Sony-only license. No more is required to justify inclusion of the '565 patent in the CD-R/RW pool licenses.

Id at 3.

Philips argues that including the Lagadec '565 patent did not result in a higher royalty for the CD-RW joint license. It contends that the IA's argument lacks factual support and makes no economic sense. Philips contends that the division of royalties among the licensors "has never been tied to particular patents or jurisdictions." *Id.* at 4 (citing Trans. (Beune) at 2356-60). It asserts that the pool licenses "grant licensees worldwide rights" and the licenses include rights to Sony's patents in jurisdictions other than the U.S. *Id.* at 4-5 (citing Trans. (Beune) at 2356-60 and chart attached to respondents' response). Thus, Philips argues that there is no factual basis for attributing Sony's share of the CD-RW joint license royalty to the Lagadec '565 patent. Although the IA relies on the ALJ's finding that the royalty Sony obtained for its patents was lower than Sony's share of the royalty for the joint license, Philips contends that "the record evidence about the price effects of splitting the joint licenses is at best inconclusive." *Id* (cross-referencing Philips' response at 19-20). Philips also argues that —

> even if combined prices did decline when single-company licenses were offered, there would be no basis to conclude that inclusion of the Lagadec '565 increased the price of the pool. The Sony-only

> licenses (as shown by the half dozen or so Sony- only CD-R licenses included in the record, *see* RX-1464-70, 1872) also included the Lagadec patent. A comparison of the prices of a pool license and individual- company licenses can demonstrate nothing about the price effect of a patent that is included in both (except, perhaps, that any difference could not be attributable to that patent).

Id. at 5.

Philips contends that the IA's theory "makes no economic sense" because "[i]t has been understood for decades that tying two products together 'does not alter the price paid by buyers, the profit earned by the seller, or the volume produced and used.'" *Id.* at 5 (citing IX P. Areeda & H. Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶11706b at 63 (2d ed. 2004) and W. Bowman, *Tying Arrangements and the Leverage Problem*, 67 Yale L.J. 19, 21-23 (1957)). Philips asserts that although "[t]here are exceptions to this principle where the two [tied] products are used in varying proportions . . . [t]hose exceptions do not apply where, as here, the royalty charged for a package does not vary based on the frequency with which particular patents are actually used." *Id.* at 6 n.5 (citing IX Areeda & Hovenkamp at 63-64).

Philips notes that the IA's argument is based on his contention that the Lagadec patent cannot be used to manufacture CD-R/RWs. According to Philips, "[i]nclusion of [a useless]

license would not increase the amount [licensees] are willing to pay for the pool (an amount that is set, as the Federal Circuit recognized, by the value to them of the right to make Orange Book discs); and Philips would not be able to increase the legitimate royalty attributable to the pool's essential patents by including the Lagadec patent in the pool." *Id.* at 6-7. Philips reasons as follows:

> If a seller has a monopoly in one product—as the [IA] alleges Philips has with respect to essential CD-R/RW patents—then buyers will have a certain demand for that product, and the seller will set the monopoly profit-maximizing price accordingly. If there is some second product over which the seller does not have market power (here, nonessential patents), a buyer will be willing to pay no more for that product than it would have to pay for an acceptable alternative—even if the seller will only sell the two products together. In other words, the buyer will be willing to pay for both products no more than the sum of the monopoly price for the first product and the competitive price for the second. Even if the seller ties the two together, if he seeks to charge more than that total price for the package, buyers will see the addition as an increase in the price for the tying product, and the seller will accordingly be charging — irrationally — more than the profit-maximizing price for *that* product. This is why, as the Federal Circuit put it, "it is entirely rational for a

> patentee who has a patent that is essential to particular technology, as well as other patents that are not essential, to charge what the market will bear for the essential patent and to offer the others for free." *U.S. Philips*, 424 F3d at 1191.
>
> Here, the premise of the [IA's] new argument is that the Lagadec '565 is not just nonessential, but actually useless. If that were correct, then rights under the Lagadec patent would be of no value at all to licensees. In that event, by definition, Philips could not use its own patents to force licensees to pay any more for a package that includes the Lagadec than they would be willing to pay for a package that did not.

Philips' reply at 5-6.

Philips dismisses the IA's theory of competitive harm, *viz*, that Philips "secured Sony's adherence to the CD-R/RW system" by "forc[ing] consumers to pay supra-competitive royalties to Sony" (IA's response at 31), as "based on nothing but speculation" that makes no economic sense. *Id.* at 6-8. Philips contends that the argument is "economically incoherent" because the royalties for the package can be no more than the value to manufacturers of the right to make Orange Book discs *(i.e.*, the value of the essential patents to

manufacturers). [58] *Id.* at 7 (cross-referencing previous argument, *id.* at 5-7). Philips asserts that the IA's theory —

> makes no sense because (i) Philips could have "co-opted" Sony just as effectively by paying it a share of royalties for its other patents (including the 19 other Sony patents in the CD-RW pools or the Ogawa '994 patent in the CD-R pool) and thus had no need to include the Lagadec '565 in the pools for that purpose; (ii) receiving a moderate share of Orange Book pool royalties would not likely dissuade Sony from developing any otherwise viable alternative technology from which it could get all the royalties; and (iii) it would be foolish for Philips to pay a portion of the Orange Book royalties in order to "co-opt" Sony while ignoring all the other technology companies that might be able to compete against it.

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[58] As to the IA's argument that Philips' package licensing reduced output, Philips contends that even if the output of Taiwanese manufacturers rose when Philips' co-licensors began offering separate licenses to their patents, "it plainly had nothing to do with the Lagadec '565 because that patent was included in the Sony-only licenses, as well as the joint licenses." *Id.* at 8 n.6. Moreover, Philips characterizes the evidence of decreased output cited by the IA as inconclusive because "[g]eneral swings in worldwide market share over time could result from any number of variables." *Id.*

Id. at 8.

Philips characterizes the IA's theory as "a potential-competition merger or joint-venture theory—that two firms that were otherwise potential competitors in the future instead improperly joined forces in a common enterprise." *Id.* at 9. Philips states that to establish harm to competition the proponent of such a theory must prove "(1) that, but for the collaboration, the 'outside' firm—here, Sony—'would have entered the market within a reasonable period of time' to compete against the Orange Book, and (2) that there are no more than three or four firma equally likely to compete against the Orange Book." *Id.* at 9 (citing V P. Areeda & H. Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶ 1121a at 53 (2d ed. 2004)). Moreover, the first requirement "requires proof both that the firm would likely have competed and that it would have 'survived to become a significant competitive force.'" *Id.* (citing VP. Areeda & H. Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶ 1128a at 94). Philips asserts that neither requirement can be met in this case because "there is no evidence that anyone could have competed successfully against the Orange Book standard; that Sony would have tried to do so; or that, if it had, it would have succeeded" and there is no evidence that "other firms were not equally able to compete against the Orange Book." *Id. at* 9.

c. Analysis

We have determined to reject the IA's argument that Philips' inclusion of Sony's Lagadec '565 patent in the CD-R/RW pool is a tying arrangement that constitutes patent misuse under the rule of reason for failure to establish the required anti-competitive effect. Below, we address each of the IA's three theories of anti-competitive effect, beginning with higher prices.

Relying on a leading antitrust law treatise, Philips asserts that the IA's theory that including the Lagadec patent in the joint licenses leads to higher prices "makes no economic sense." Philips' reply at 5. As Philips notes (Philips' reply at 6 n.5), the portion of the treatise [59] quoted by Philips describes the effect of a fixed proportion tie in which "the tied product [is] *used* in fixed proportion with the tying product." Areeda, ¶ 1706b1 (emphasis added). However, in this case, although a licensee must (by definition) use the essential patents to manufacture an Orange Book compliant CD-R/RW, a licensee may — or may not — use the non-essential patents.[60] Because this is not a situation

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[59] Even if a fixed proportion tie leads to the monopolist of the tying product obtaining a monopoly of the tied product, "that second monopoly does not alter the price paid by buyers, the profit earned by the seller, or the volume produced and used" where "the second monopoly of a tied product [is] used in fixed proportion with the tying product." Areeda, ¶ 1706b1.

[60] A patent is essential if it is necessarily infringed by compliance with Orange Book standard or if there is no realistic alternative to it in implementing the standard (*i.e.*, no

in which licensees must *use* the non-essential (tied) patent in fixed proportion to the essential (tying) patents, this portion of Philips' argument does not establish that anti-competitive effect is necessarily lacking in this case.

Philips further argues that including an unwanted patent in the package would not allow the seller to increase the royalty for the package above the profit-maximizing price for the tying patents. The cited treatise lends support to this rebuttal to the IA's argument. *See* Areeda, ¶ 1706b2 at 64 ("Assuming the seller was already charging the profit-maximizing price to those who did not want the second [tied] product, adding it and requiring an additional charge would raise the price to those purchasers above the profit-maximizing level, thus actually depressing the seller's profits. As a result, the seller would be unlikely to increase the price").

Moreover, the premise of the IA's argument, *viz.*, that the Lagadec '565 patent cannot be used to make an Orange Book compliant CD, is fatal to his rule of reason tying claim. This is because, once that premise is accepted, foreclosure cannot occur in the tied market *(i.e.*, the technology licensing market for the non-essential patent (the Lagadec '565 patent) and substitute technology). 'When a purchaser is

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economically feasible alternatives, necessary as a practical matter). Comm'n op. at 59-61. "Patents within a patent package can be regarded as 'nonessential' only if there are 'commercially feasible' alternatives to those patents." *Philips*, 424 F.3d at 1194.

'forced' to buy a product he would not have otherwise bought even from another seller in the tied product market, *there can be no adverse impact on competition* because no portion of the market which would otherwise have been available to other sellers has been foreclosed." *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (emphasis added).

As a leading antitrust law treatise explains:

> [w]hen all buyers are forced to take a tied product they do not want and would not have purchased elsewhere, tied-market foreclosure is zero and thus does not satisfy even the minimal requirements for per se illegality. Moreover such buyers are not injured in fact, for this tie simply increases the effective price of the tying product.

XP. Areeda, H. Hovenkamp, E. Elhauge, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* (2d. ed. 2004) ¶ 1769e1 (footnotes omitted). In discussing package licensing, the treatise states that --

> [t]ying is not unreasonable under the antitrust laws absent foreclosure in the tied market or other genuine threat to competition. Even the per se rule requires some positive foreclosure, which is lacking when the licensee would not have purchased the tied product from other suppliers. In a typical package license case, the licensee complains that

> it does not want or use the tied product at all. *Such non-use forecloses no one.*

Id. at ¶ 1782a5 (footnotes omitted) (emphasis added). The authors immediately note:

> That a licensee must pay for a [tied] patent B that it does not want means only that the true price of [tying] patent A is the sum of the nominal prices for the two patents. That the true price of patent A then exceeds its nominal price is not itself anti-competitive, for the patentee is entitled to charge whatever the market will bear for each patent.

Id. at ¶ 1782a5 n.34. Thus, the IA's argument that including a patent that cannot be used to manufacture Orange Book compliant discs in a joint license caused anti-competitive royalties is not persuasive.

As to the IA's identification of "decreased output" as an anti-competitive effect of the patent pools, notwithstanding the IA's citation of his reply brief on Commission review,[61] this

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[61] The cited portions of the IA's reply concern his response to Philips' argument that the pro-competitive benefits of its joint licensing practices outweigh any alleged anti-competitive effects. *See* IA's reply brief on Commission review at 20-22 (filed January 20, 2004); Philips' brief on Commission review at 128-33 (filed January 9, 2004). In response to Philips' argument that the market for discs developed as a result of the pool licenses, the IA contended that the growth of the industry was not hindered by the breakup of the patent pools by the Taiwanese Fair Trade Commission, rather the industry in

appear to be the first time that the IA has suggested decreased output as an anti-competitive effect of the joint licenses. Thus, we consider the argument waived as not timely raised and decline to consider it. However, even if we were to consider the IA's argument on this point, we would reject it. Although the IA offers some evidence that the worldwide market share of Taiwanese manufacturers increased when licenses became available from each of the joint licensors, the IA offers no reason why the increase in market share should be attributed to the availability of separate licenses. Instead, the IA asserts that Taiwanese "production increased when manufacturers were able to purchase patent licenses separately," which "implies that the patent pools decreased output." IA's response at 30-31. Such an inference is unwarranted given the IA's failure to articulate any theory of causation.

The third anti-competitive effect alleged by the IA is that, by including the Lagadec '565 patent in the pools, Philips "secured Sony's adherence to the CD-R/RW system and the Orange Book standard" and "foreclosed competition." IA's response at 31-32. The IA's theory is that Philips included the Lagadec patent to forestall competition from Sony.[62] In support of his theory the IA notes

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Taiwan expanded. IA's reply brief on Commission review at 21-22.

[62] In footnote 19 *supra*, we noted that the ALJ failed to articulate any basis for his remark that the inclusion of the

that the U.S. Department of Justice and the Federal Trade Commission recognize that pooling arrangements may slow innovation by discouraging participants from research and development. IA's response at 31 (citing *Antitrust Guidelines* §§ 5.5, 3.2.2-3).

The portion of the *Antitrust Guidelines* cited by the IA indicates that those agencies would use a procedure "similar to that applied to other joint ventures" (*Antitrust Guidelines* § 3.2.3 example 4) to evaluate whether a pooling arrangement deterred participants from engaging in research and development. *See Antitrust Guidelines* § 5.5 (cross-referencing §3.2.3 and Example 4). Thus, the agencies "would begin by defining the relevant markets in which to analyze the joint venture's likely competitive effects" and "would seek to identify any other entities that would be actual or likely potential competitors with the joint venture in that relevant market." *Id.* § 3.2.3 example 4. According to the *Antitrust Guidelines*, the "starting point" for assessing the likelihood of anti-competitive effects from the joint venture in the relevant innovation market is "the degree of concentration in the relevant market and the market shares of the parties to the joint venture." *Id.* Nonetheless, rather than presenting such an analysis, the IA speculates about Philips' intentions

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Lagadec patent "in the pool appears to be an attempt to forestall digital approaches to achieving what the Philips analog technology has achieved." (ID at 200 n. 120). Consequently, we have declined to adopt the ALJ's remark.

in including the Lagadec patent in the pools.[63] *See* IA's response at 31-32 (cross-referencing IA's reply to Philips' petition for review at 42-43).

Philips correctly identifies the IA's argument as viewing the licensing arrangement as tantamount to a merger that eliminates Sony as a potential competitor. As explained by a leading antitrust law treatise, such a merger "may have a future [anti-competitive] effect by precluding liter independent entry that would have added an additional competitor to the market." VP. Areeda & H. Hovenkamp, *Antitrust Law, An Analysis of Antitrust Principles and Their Application* ¶ 1121a at 52 (2d ed. 2003). Unless "[t]he outside merging firm would probably have entered the market within

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[63] The IA relies on the testimony of three witnesses: Trans. (Mons) at 376-79, 388-409, 464-65, 468; Trans. (Smith) at 1484; Trans. (McCarthy) at 2154-55 (referring to his earlier testimony at Trans. 1991). Contrary to the IA's interpretation, Mons took the position that Philips partnered with Sony for technical reasons. *See supra* note 22; Trans. (Mons) at 464:19-466:21, 468:7-23. Smith's testimony is only that Sony is "powerful company" with "a substantial presence" in the "technology marketplace." Trans. (Smith) at 1484. Philips' economics expert (McCarthy) testified that "one of [the] ways of sort of priming the pump to get your technology adopted, is to make sure that you develop the hardware that can go along with it" and that, as a brand-name consumer electronics manufacturer, Sony would be able to prime the pump better, in most cases, than a small company. Trans. (McCarthy) at 1991, 2154-55. The testimony of these witnesses is inadequate support for the IA's inference that "Philips included Sony in the pool not because Sony brought anything necessary to the CD-R/RW technology, but rather because Sony is a major player in the industry, whose cooperation Philips wanted." IA's response at 31.

a reasonable period of time, . . . its merger would not affect the likelihood of future entry." *Id.* ¶ 1121b at 53. Moreover, unless the outside firm "would have entered and survived to become a significant competitive force" "it could not have augmented future competition in an important way, and its elimination by merger would not be a significant detriment to future competition." *Id.* at 1128a at 94. The IA has not identified evidence that would support such a finding, nor are we aware of any such evidence in the record.

C. Pro-Competitive Effects

For the reasons discussed *supra* in section III.B, we have reversed the ALJ's findings of anti-competitive effect flowing from Philips' licensing practices and rejected the various theories of anti-competitive effect advanced by respondents and the IA. Consequently, any efficiencies associated with the package licensing are *not* outweighed by alleged anti-competitive effects. *See Viazis v. Am. Ass'n of Orthodontists*, 314 F.3d 758, 766 (5th Cir. 2002); *Clorox Co. v. Sterling Winthrop, Inc.*, 117 F.3d 50, 59-60 (2d Cir. 1997).

IV. Remedy, the Public Interest, and Bonding

Where a violation of section 337 has been found, the Commission must consider the issues of remedy, as well as public interest and bonding. The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. *Hyundai Elecs. Indus. Co. v. U.S. Intl Trade Comm'n*, 899 F.2d 1204, 1208-09

(Fed. Cir. 1990); *Viscofan, S.A. v. U.S. Int'l Trade Comm'n*, 787 F.2d 544, 548 (Fed. Cir. 1986).

We have determined that the appropriate form of relief is a general exclusion order prohibiting the unlicensed entry for consumption of recordable and rewritable compact discs that infringe the claims in issue of the six patents asserted by Philips in this investigation. The general exclusion order includes a personal use exemption. We have also determined to issue four cease and desist orders directed to domestic respondents Princo America Corp., Gigastorage Corp. USA, Linberg, and DiscsDirect.Com. Finally, we determine that (1) consideration of the public interest factors set forth in sections 337(d), (f), and (g) does not preclude issuance of the aforementioned general exclusion order and cease and desist orders and (2) the recordable and rewritable compact discs in question may be imported into the United States during the period of Presidential review under bond in the amount of US$0.06 per such article.

A. Remedy

The ALJ issued his recommended determination ("RD") on remedy and bonding on December 8, 2003. In the event that the Commission were to find a violation of section 337, the ALJ recommended that the Commission issue a general exclusion order, and cease and desist orders directed to domestic respondents Princo America Corp., Gigastorage Corp. USA, and Linberg.

1. General Exclusion Order

Section 337(d)(2) provides:

> (2) The authority of the Commission to order an exclusion from entry of articles shall be limited to persons determined by the Commission to be violating this section unless the Commission determines that —
>
> > (A) a general exclusion from entry of articles is necessary to prevent circumvention of an exclusion order limited to products of named persons; or
> >
> > (B) there is a pattern of violation of this section and it is difficult to identify the source of infringing products.

The Commission has noted that the criteria of section 337(d)(2) "do not differ significantly" from the factors in *Certain Airless Paint Spray Pumps and Components Thereof*, Inv. No. 337-TA-90 *("Spray Pumps")*. *See Certain Neodymium-Iron-Boron Magnets, Magnet Alloys, and Articles Containing Same*, Inv. No. 337-TA-372, USITC Pub. No. 2694, 1996 WL 1056324 (U.S.I.T.C., May 1996).

In *Spray Pumps*, the Commission held that a complainant seeking a general exclusion order must show both (1) a widespread pattern of unauthorized use of its patented invention and (2) certain business conditions from which one might reasonably infer that foreign manufacturers other

than the respondents to the investigation may attempt to enter the U.S. market with infringing articles. *Spray Pumps*, USITC Pub. No. 1199, 216 U.S.P.Q. 465 (U.S.I.T.C., November, 1981). The Commission stated that among the evidence which might be presented to prove a "widespread pattern of unauthorized use of the patented invention" would be:

> (1) a Commission determination of unauthorized importation into the United States of infringing articles by numerous foreign manufacturers; or
>
> (2) the pendency of foreign infringement suits based upon foreign patents which correspond to the domestic patent in issue;
>
> (3) other evidence which demonstrates a history of unauthorized use of the patented invention.

Spray Pumps, 216 U.S.P.Q. 465, 473. Among the evidence which might be presented to prove the "business conditions" referred to would be:

> (1) an established demand for the patented product in the U.S. market and conditions of the world market;
>
> (2) the availability of marketing and distribution networks in the United States for potential foreign manufacturers;

(3) the cost to foreign entrepreneurs of building a facility capable of producing the. patented article;

(4) the number of foreign manufacturers whose facilities could be retooled to produce the patented articles; or

(5) the cost to foreign manufacturers of retooling their facility to produce the patented articles.

Spray Pumps, 216 U.S.P.Q. 465, 473.

a. Positions of the Parties

In its current briefing to the Commission, Philips requests issuance of the remedial orders without further briefing. Philips notes that the Commission previously invited comment on the issues of remedy, the public interest, and bonding. Philips supports the RD and has submitted a proposed general exclusion order. Philips' comments at 18-19 (cross-referencing the ALJ's RD and earlier remedy briefing).

The IA states that "there appears to be no reason for the parties to re-brief the issues on remedy." IA's comments at 4. In his previously submitted remedy briefing, the IA generally supported the RD, and submitted a proposed general exclusion order.

Respondents did not seek to supplement their previous briefing on the issues of remedy, the public interest, or bonding. *See* Respondents'

comments; Respondents' response. In their previous remedy briefing, respondents contend that a limited exclusion order, rather than a general exclusion order, is sufficient to protect Philips' interests.

Respondents assert that the only manufacturers accused in this investigation are respondents Princo Corporation and Gigastorage Corporation Taiwan, that the record contains no evidence that other manufacturers are in violation of section 337, and that all defaulting respondents are customers of Princo and Gigastorage rather than manufacturers. Thus, they contend that the "pattern of violation of Section 337" required to justify issuance of a general exclusion order pursuant to section 337(d)(2) cannot be established. Respondents also assert that because "getting started in the disc manufacturing business is no simple task," it is unreasonable to infer further section 337 violations from business conditions. Respondents' remedy brief at 2.

The IA responds that "there are five identified manufacturers of infringing CD-Rs and CD-RWs (two of which participated and three of which were found in default)." IA's remedy reply brief at 5. He states that allegations in the complaint are presumed to be true against defaulting respondents, and defaulting respondents [

] are accused foreign manufacturers of infringing CD-Rs and CD-RWs. *Id.* at 4-5 (citing 19 U.S.C. § 1337(g)(1)(E), Complaint, ¶¶ 3.1, 3.3, and 3.9). As to "business conditions," the

IA points out that the "the significant number of domestic Respondents which distribute the infringing CD-Rs and CD-RWs" evidences "established marketing and distribution networks." *Id.* at 6.

b. Analysis

We have determined to adopt the ALJ'S recommended determination as to remedy. We determine that the record in this investigation shows that a general exclusion order is "necessary to prevent circumvention of an exclusion order limited to products of named persons," 19 U.S.C. § 1337(d)(2)(A). No royalties are paid on about 30 to 35 percent of CD-R and CD-RW discs sold in the worldwide market *(see* ID at 172-73), and "[t]he evidence . . . shows that evasion of a limited exclusion order likely would be easy due to the unrebutted evidence that discs are often unmarked, and therefore in enforcing a remedy, the source of imported discs would be difficult to determine" (RD at 7-8). In addition to establishing that "it is difficult to identify the source of infringing products," the ALJ correctly found that the record demonstrates a "pattern of violation of this section" (RD at 6-7, ALJ Order Nos. 6, 17, 18, 21). 19 U.S.C. § 1337(d)(2)(B).

In his remedy brief, the IA notes that personnel in the Intellectual Property Rights Branch of the Bureau of Customs and Border Protection ("Customs") reviewed his proposed general exclusion order and suggested including a certification provision that would "provide Customs with the express authority to seek, in its discretion, certification from importers who may contend that

their CD-Rs and CD-RWs are licensed by Philips" in order to facilitate enforcement. IA's remedy brief at 9 n.3. Although the IA does not expressly oppose inclusion of such a provision, his proposed general exclusion order omits it. Without such a provision, the burden on Customs to identify infringing CD-Rs and CD-RWs is likely to be substantial. Consequently, we have included such a certification provision in the exclusion order.

The proposed general exclusion order attached as an addendum to Philips' current briefing to the Commission includes a personal use exemption for "up to 200" CD-R or CD-RW discs that "accompany a person arriving in the United States and are for the arriving person's personal use." Philips' comments, Addendum A (proposed general exclusion order) ¶3. No party has previously suggested that a personal use exemption be included in the general exclusion order in this investigation, and there has been no briefing on this issue. The numerical limit (up to 200) proposed by complainant may prove impracticable for Customs to administer. Although we do not object to a personal use exemption in this case, we see no reason to depart from the form used recently by the Commission in another investigation. The general exclusion order issued by the Commission in *Certain Lens-Fitted Film Packages*, Inv. No. 337-TA-406, includes the following personal use exemption:

> [t]he aforesaid lens-fitted film packages are entitled to entry for consumption into the United States, without payment of bond, if upon importation they accompany a person arriving in the

> United States and are for the arriving person's personal use, or which are otherwise imported into the United States in such small quantities and under such circumstances so as to reasonably indicate to the satisfaction of the U.S. Customs Service that they are being imported for personal use rather than for commercial purposes.

Rather than including a numerical limit as suggested by complainant, the general exclusion order includes a personal use exemption similar to that included in the general exclusion order issued in the *Lens-Fitted Film Packages* investigation.

2. Cease and Desist Orders

Under Commission precedent, cease and desist orders are warranted against respondents with significant inventories of infringing goods in the U.S. *See e.g. Certain Crystalline Cefadroxil Monohydrate*, Inv. No. 337-TA-293, Comm'n Opinion at 6 (January 19, 1990).

a. Positions of the Parties

As noted *supra*, Philips supported the RD and requests issuance of the remedial orders without further briefing. Philips also submitted a model cease and desist order. The IA also supported the RD and submitted a proposed cease and desist order.

While respondents did not seek to supplement their earlier remedy briefing, they previously opposed issuance of cease and desist orders.

b. Analysis

We agree with the ALJ that domestic respondents Princo America Corp., Gigastorage Corp. USA, and Linberg maintain commercially significant inventories of infringing discs and that cease and desist orders should be issued against them. The ALJ found commercially significant inventories for domestic respondents Princo America Corp., Gigastorage Corp. USA, and Linberg based upon discovery from respondents concerning the volume of discs that they imported and sold. RD at 8-10. Although respondents argue that cease and desist orders directed to them are unwarranted, they provide no data in support of their contention that the ALJ erred in attributing the imbalance between the quantity of discs imported and the quantity of discs sold to U.S. inventory because his calculation ignored the importation of discs destined for other countries. *See* Respondents' remedy brief at 3. Because respondents failed to support their assertion with specific facts and citations to the record, their argument that the Commission should not presume that each of them has "commercially significant" U.S. inventories of CD-R/RWs, is not persuasive.

We also agree with the IA's suggestion to issue a cease and desist order directed to defaulting domestic respondent DiscsDirect.Com, in addition to the cease and desist orders directed to domestic respondents Primo America Corp., Gigastorage Corp. USA, and Linberg. In the past, the Commission has presumed that defaulting domestic companies maintain commercially significant domestic

inventory. *Certain Video Game Systems, Accessories, and Components Thereof*, Inv. No. 337-TA-473, Commission Opinion on Remedy, the Public Interest, and Bonding at 2 (Dec. 24, 2002); *Certain Agricultural Tractors Under 50 Power Take-Off Horsepower*, Inv. No. 337-TA-380, USITC Pub. No. 3026 (March 1997), Comm'n op. at 32, n.124.

B. Public Interest

Sections 337(d), (f), and (g) direct the Commission to consider public interest factors before issuing remedial orders, including the effect of any such remedial order on the "public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers." 19 U.S.C. §§1337(d), (f), and (g). By rule, the ALJ's RD on remedy and bonding does not address the issue of the public interest. Commission rule 210.50(b)(1). We determine that there is no evidence that issuance of the remedial orders will adversely affect the public interest.

Philips argues that the remedial orders are in the public interest because "the continued sale of unlicensed discs is a threat to the vitality of domestic manufacturers that do pay their royalties." Philips' remedy brief at 9. Philips contends that the general exclusion order would "level the playing field for domestic manufacturers" and benefit those "retailers who seek to comply with the intellectual property laws of the United States." *Id* at 10. Philips further argues that "[i]t is in the public interest for Philips, both as an employer and an innovator, to be

rewarded for the benefits of its innovation so that it might continue to bring such products to the market." *Id.* at 11 (citing *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81, 484 (1974), and *Troxel Mfg. Co. v. Schwinn Bicycle Co.*, 465 F.2d 1253, 1258 (6th Cir. 1972)).

Although noting the statement in the RD at 8 that a "potential disruption to legitimate commerce cannot be discounted," the IA states that no public interest concerns are raised by the general exclusion order or cease and desist orders because "there are many currently licensed manufacturers supplying CD-R/RWs to the United States." IA's remedy brief at 12-13. He further states that "the public interest favors the protection of U.S. intellectual property rights by excluding infringing imports." *Id.* at 13. The IA notes that respondents have presented no contrary argument.

Neither respondents, nor the IA, nor any other person has presented any substantive argument that issuance of the remedial orders is precluded because it would adversely affect the public interest. We therefore determine that there has been no showing that issuance of the general exclusion order or cease and desist orders would implicate the statutory public interest concerns.

C. Bonding

Pursuant to section 337(j)(3), the bond during the 60-day period of Presidential review is to be set "in an amount determined by the Commission to be sufficient to protect the complainant from any injury." 19 U.S.C. § 1337(j)(3). The President has

delegated his functions under section 337 to the United States Trade Representative. 70 *Fed. Reg.* 43251 (July 26, 2005).

The ALJ recommended that, in the event a violation of section 337 is found, the Commission impose a bond during the period of Presidential review in the amount of US$0.06 per CD-R disc or CD-RW disc. RD at 12.

The IA and Philips agree that the amount of the bond recommended in the RD is appropriate. Respondents identify certain testimony in the record in support of their argument that a bond of $0.06 per disc is unreasonable. The ALJ carefully considered the evidence in the record on this issue, and we concur with his recommendation.

The ALJ stated that "[i]f the Commission determines that there is a violation of section 337, the Commission must reverse the finding in the Initial Determination that there has been patent misuse. In doing so, it is not clear how the Commission could reconcile such a reversal with the determination of a 'reasonable royalty,' inasmuch as Philips opposed the principle of a reasonable rate in its post-hearing briefs." RD at 11. Nonetheless, the ALJ noted that it "would be appropriate for the Commission to look at Philips' current royalty rate to determine a reasonable rate that would protect Philips from harm." *Id.* He considered and rejected the 3 percent royalty rate requested by respondents on the ground that such a rate did not reflect that "charged to companies such as Respondents, which are neither cross-licensees nor companies that have agreed to Philips' Compliance Reward Program.

Rather, the rate that would be applied to Respondents would be the rate that Philips characterizes as the current standard royalty rate charged under the Philips-only patent license agreements for CD-R and CD-RW," *viz.*, $0.06 per CD-R or CD-RW disc. RD at 11-12.

D. Other Issues

Respondents requested that the Commission impose a quarterly reporting requirement on complainant Philips to demonstrate the continued existence of a domestic industry. We decline to impose such a requirement.

In this investigation, satisfaction of the domestic industry requirement is based upon "the manufacturing in the United States of CD-R discs by Mitsui Advanced Media, Inc. ["Mitsui"] and/or CD-RW discs by Imation Corporation (including each of their successors and assigns)." ID at 137-38. Although respondents identify two investigations in which the Commission has imposed such reporting requirements, the facts in those investigations are inapposite. In *Certain Variable Speed Wind Turbines and Components Thereof* Inv. No. 337-TA-376, Commission Notice and Order (Aug. 30, 1996), the complainant had filed for bankruptcy. In *Certain Caulking Guns*, Inv. No. 337-TA-139, Commission Notice, Action, and Order (Mar. 1984), a domestic industry was in the process of being established. If respondents learn that Mitsui and/or Imation have gone out of business, they are free to petition for rescission of the general exclusion order pursuant to Commission rule 210.76.

By Order of the Commission.

Marilyn R. Abbott

Secretary to the Commission

Issued: February 5, 2007

CERTAIN RECORDABLE COMPACT DISC AND REVVRITABLE COMPACT DISCS

337-TA-474

PUBLIC CERTIFICATE OF SERVICE

I, Marilyn It. Abbott, hereby certify that the attached COMMISSION OPINION was served upon the Commission Investigative Attorney Rett V. Snotherly, *Esq.* and parities via first class mail and air mail where necessary on April 10, 2007.

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APPENDIX D

United States Court of Appeals for the Federal Circuit

04-1361

U.S. PHILIPS CORPORATION,

Appellant,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

PRINCO CORPORATION, PRINCO AMERICA CORPORATION,
GIGASTORAGE CORPORATION TAIWAN,
GIGASTORAGE CORPORATION USA, and
LINBERG ENTERPRISE INC.,

Intervenors.

A. Douglas Melamed, Wilmer Cutler Pickering Hale and Dorr LLP, of Washington, DC, argued for appellant. With him on the brief were William J. Kolasky, Edward C. DuMont, Jonathan G. Cedarbaum, and Barbara R. Blank.

Clara Kuehn, Attorney, Office of General Counsel, United States International Trade Commission, of Washington, DC, argued for appellee. With her on the brief were James M. Lyons, Acting General Counsel, and Wayne W. Herrington, Acting Deputy General Counsel for Litigation.

Alan D. Smith, Fish & Richardson P.C., of Boston, Massachusetts, argued for intervenors. With him on the brief were Charles H. Sanders of Boston, Massachusetts; and Richard G. Green and Tina M. Chappell, of Washington, DC. Of counsel was Ahmed J. Davis, of Washington, DC.

John DeQ. Briggs, III, Howrey Simon Arnold & White, LLP, of Washington, DC, for amicus curiae Intellectual Property Owners Association. With him on the brief were Marc G. Schildkraut and Joseph P. Lavelle. Of counsel on the brief was J. Jeffrey Hawley, President, Intellectual Property Owners Association, of Washington, DC.

David F. Ryan, Fitzpatrick, Cella, Harper & Scinto, of New York, New York, for amicus curiae New York Intellectual Property Law Association. With him on the brief was Matthew S. Seidner. Of counsel on the brief was John D. Murnane, President, New York Intellectual Property Law Association, of New York, New York. Of counsel was Joseph B. Divinagracia.

Appealed from: United States International Trade Commission

United States Court of Appeals for the Federal Circuit

04-1361

U.S. PHILIPS CORPORATION,

Appellant,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

PRINCO CORPORATION, PRINCO AMERICA CORPORATION,
GIGASTORAGE CORPORATION TAIWAN,
GIGASTORAGE CORPORATION USA, and
LINBERG ENTERPRISE INC.,

Intervenors.

DECIDED: September 21, 2005

Before BRYSON, GAJARSA, and LINN, Circuit Judges.

BRYSON, Circuit Judge.

U.S. Philips Corporation appeals from a final order of the United States International Trade Commission, in which the Commission held six of Philips's patents for the manufacture of compact discs to be unenforceable because of patent misuse.

The Commission ruled that Philips had employed an impermissible tying arrangement because it required prospective licensees to license packages of patents rather than allowing them to choose which individual patents they wished to license and making the licensing fee correspond to the particular patents designated by the licensees. In re Certain Recordable Compact Discs & Rewritable Compact Discs, Inv. No. 337-TA-474 (Int'l Trade Comm'n Mar. 25, 2004). We reverse and remand.

I

Philips owns patents to technology for manufacturing recordable compact discs ("CD-Rs") and rewritable compact discs ("CD-RWs") in accordance with the technical standards set forth in a publication called the Recordable CD Standard (the "Orange Book"), jointly authored by Philips and Sony Corporation. Since the 1990s, Philips has been licensing those patents through package licenses. Philips specified that the same royalty was due for each disc manufactured by the licensee using patents included in the package, regardless of how many of the patents were used. Potential licensees who sought to license patents to the technology for manufacturing CD-Rs or CD-RWs were not allowed to license those patents individually and were not offered a lower royalty rate for licenses to fewer than all the patents in a package.

Initially, Philips offered four different pools of patents for licensing: (1) a joint CD-R patent pool that included patents owned by Philips and two other companies (Sony and Taiyo Yuden); (2) a joint CD-RW patent pool that included patents owned by

Philips and two other companies (Sony and Ricoh); (3) a CD-R patent pool that included only patents owned by Philips; and (4) a CD-RW patent pool that included only patents owned by Philips. After 2001, Philips offered additional package options by grouping its patents into two categories, which Philips denominated "essential" and "nonessential" for producing compact discs compliant with the technical standards set forth in the Orange Book.

In the late 1990s, Philips entered into package licensing agreements with Princo Corporation and Princo America Corporation (collectively, "Princo"); GigaStorage Corporation Taiwan and GigaStorage Corporation USA (collectively, "GigaStorage"); and Linberg Enterprise Inc. ("Linberg"). Soon after entering into the agreements, however, Princo, GigaStorage, and Linberg stopped paying the licensing fees. Philips filed a complaint with the International Trade Commission that Princo, GigaStorage, and Linberg, among others, were violating section 337(a)(1)(B) of the Tariff Act of 1930, 19 U.S.C. § 1337(a)(1)(B), by importing into the United States certain CD-Rs and CD-RWs that infringed six of Philips's patents.

The Commission instituted an investigation and identified 19 respondents, including GigaStorage and Linberg. Additional respondents, including Princo, were added through intervention. In the course of the proceedings before an administrative law judge, the respondents raised patent misuse as an affirmative defense, alleging that Philips had improperly forced them, as a condition of licensing patents that were necessary to manufacture CD-Rs

or CD-RWs, to take licenses to other patents that were not necessary to manufacture those products. In particular, the respondents argued that a number of the patents that Philips had included in the category of "essential" patents were actually not essential for manufacturing compact discs compliant with the Orange Book standards, because there were commercially viable alternative methods of manufacturing CD-Rs and CD-RWs that did not require the use of the technology covered by those patents. The allegedly nonessential patents included U.S. Patent Nos. 5,001,692 ("the Farla patent"), 5,740,149 ("the Iwasaki patent"), Re. 34,719 ("the Yamamoto patent"), and 5,060,219 ("the Lokhoff patent").

The administrative law judge ruled that the intervenors had infringed various claims of the six asserted Philips patents. The administrative law judge further ruled, however, that all six of the asserted patents were unenforceable by reason of patent misuse. Among the grounds invoked by the administrative law judge for finding patent misuse was his conclusion that the package licensing arrangements constituted tying arrangements that were illegal under analogous antitrust law principles and thus rendered the subject patents unenforceable.

Philips petitioned the Commission for review of the administrative law judge's decision. In an order that addressed only the findings concerning patent misuse, the Commission affirmed the administrative law judge's ruling that Philips's package licensing practice "constitutes patent misuse per se as a tying arrangement between (1) licenses to

patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards and (2) licenses to other patents that are not essential to that activity." The Commission found that the Farla, Iwasaki, Yamamoto, and Lokhoff patents were not essential to manufacturing CD-Rs or CD-RWs. Specifically, the Commission found that the Farla and Lokhoff patents were nonessential with respect to the Philips-only CD-RW and CD-R licenses, and that the Farla, Iwasaki, Yamamoto, and Lokhoff patents were nonessential with respect to the joint CD-RW license. The Commission concluded that the four nonessential patents were impermissibly tied to patents that were essential to manufacturing CD-Rs and CD-RWs, because "none of the so-called essential patents could be licensed individually for the manufacture of CD-RWs and CD-Rs apart from the package" that Philips denominated as "essential." The Commission also found, based on the administrative law judge's findings and analysis, that the joint license for CD-R and CD-RW technology unlawfully tied patents for CD-Rs and CD-RWs in accordance with the Orange Book standards to patents that were not essential to manufacture such discs.

The Commission explained why it concluded that each of the four patents was nonessential. According to the Commission, the Farla and Iwasaki patents were not essential because there was an economically viable alternative method of writing information to discs that did not require the producer to practice those patents; the Yamamoto patent was not essential because there was a potential alternative method of creating master discs that did

not require the producer to practice that patent; and the Lokhoff patent was not essential because there were alternative possible methods of accomplishing copy protection that did not require the producer to practice that patent. Based on those findings, the Commission concluded that the four "nonessential" patents constituted separate products from the patents that were essential to the manufacture of the subject discs.

The Commission ruled that Philips's patent package licensing arrangement constituted per se patent misuse because Philips did not give prospective licensees the option of licensing individual patents (presumably for a lower fee) rather than licensing one or more of the patent packages as a whole. The Commission took no position on the administrative law judge's ruling that patent pooling arrangements between Philips and its colicensors constituted patent misuse per se based on the theories of price fixing and price discrimination, and it took no position on the administrative law judge's conclusion that the royalty structure of the patent pools was an unreasonable restraint of trade.

As an alternative ground, the Commission concluded that even if Philips's patent package licensing practice was not per se patent misuse, it constituted patent misuse under the rule of reason. Adopting the administrative law judge's findings, the Commission ruled that the anticompetitive effects of including nonessential patents in the packages of so-called essential patents outweighed the procompetitive effects of that practice. In particular, the Commission held that including such

nonessential patents in the licensing packages could foreclose alternative technologies and injure competitors seeking to license such alternative technologies to parties who needed to obtain licenses to Philips's "essential" patents. The Commission took no position with respect to the portion of the administrative law judge's rule of reason analysis in which the administrative law judge concluded that the royalty rate structure of the patent pooling arrangements constituted an unreasonable restraint on competition.

Philips took this appeal from the Commission's order.

II

Patent misuse is an equitable defense to patent infringement. It "arose to restrain practices that did not in themselves violate any law, but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy." Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 704 (Fed. Cir. 1992). The purpose of the patent misuse defense "was to prevent a patentee from using the patent to obtain market benefit beyond that which inheres in the statutory patent right." Id. As the Supreme Court has explained, the doctrine of patent misuse bars a patentee from using the "patent's leverage" to "extend the monopoly of his patent to derive a benefit not attributable to the use of the patent's teachings," such as requiring a licensee to pay a royalty on products that do not use the teaching of the patent. Zenith Radio Corp. v. Hazeltine Res., Inc., 395 U.S. 100, 135-36 (1969). The "key inquiry is whether, by imposing conditions

that derive their force from the patent, the patentee has impermissibly broadened the scope of the patent grant with anticompetitive effect." C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1372 (Fed. Cir. 1998); Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001 (Fed. Cir. 1986).

This court summarized the principles of patent misuse as applied to "tying" arrangements in Virginia Panel Corp. v. MAC Panel Co., 133 F.3d 860, 868-69 (Fed. Cir. 1997). The court there explained that because of the importance of anticompetitive effects in shaping the defense of patent misuse, the analysis of tying arrangements in the context of patent misuse is closely related to the analysis of tying arrangements in antitrust law. The court further explained that, depending on the circumstances, tying arrangements can be viewed as per se patent misuse or can be analyzed under the rule of reason. Id. The court noted that certain specific practices have been identified as constituting per se patent misuse, "including so-called 'tying' arrangements in which a patentee conditions a license under the patent on the purchase of a separable, staple good, and arrangements in which a patentee effectively extends the term of its patent by requiring post-expiration royalties." Id. at 869 (citations omitted). If the particular licensing arrangement in question is not one of those specific practices that has been held to constitute per se misuse, it will be analyzed under the rule of reason. Id. We have held that under the rule of reason, a practice is impermissible only if its effect is to restrain competition in a relevant market. Monsanto

Co. v. McFarling, 363 F.3d 1336, 1341 (Fed. Cir. 2004); Windsurfing Int'l, 782 F.2d at 1001-02.

The Supreme Court's decisions analyzing tying arrangements under antitrust law principles are to the same effect. The Court has made clear that tying arrangements are deemed to be per se unlawful only if they constitute a "naked restrain[t] of trade with no purpose except stifling of competition" and "always or almost always tend to restrict competition and decrease output" in some substantial portion of a market. Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 19-20 (1979). The Supreme Court has applied the per se rule only when "experience with a particular kind of restraint enables the Court to predict with confidence that the rule of reason will condemn it . . . ." Arizona v. Maricopa County Med. Soc'y, 457 U.S. 332, 344 (1982); see Broad. Music, 441 U.S. at 9-10 ("It is only after considerable experience with certain business relationships that courts classify them as per se violations."), quoting United States v. Topco Assocs., 405 U.S. 596, 607-08 (1972); Cont'l T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 49-50 (1977) (per se rules are "appropriate only when they relate to conduct that is manifestly anticompetitive"); see also Jefferson Parish Hosp. Dist. v. Hyde, 466 U.S. 2, 14 (1983) ("[T]he law draws a distinction between the exploitation of market power by merely enhancing the price of the tying product, on the one hand, and by attempting to impose restraints on competition in the market for a tied product, on the other."). Conduct is not considered per se anticompetitive if it has "redeeming competitive virtues and . . . the search for those values is not almost sure to be in

vain." Broad. Music, 441 U.S. at 13; Nat'l Collegiate Athletic Ass'n v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 104 n. 26 (1983) ("[W]hile the court has spoken of a 'per se' rule against tying arrangements, it has also recognized that tying may have procompetitive justifications that make it inappropriate to condemn without considerable market analysis.").

While the doctrine of patent misuse closely tracks antitrust law principles in many respects, Congress has declared certain practices not to be patent misuse even though those practices might otherwise be subject to scrutiny under antitrust law principles. In 35 U.S.C. § 271(d), Congress designated several specific practices as not constituting patent misuse. The designated practices include "condition[ing] the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product," unless, in view of the circumstances, the patent owner "has market power for the patent or patented product on which the license or sale is conditioned." Id. § 271(d)(5). Because the statute is phrased in the negative, it does not require that patent misuse be found in the case of all such conditional licenses in which the patent owner has market power; instead, the statute simply excludes such conditional licenses in which the patent owner lacks market power from the category of arrangements that may be found to constitute patent misuse.

Although section 271 (d)(5) does not define the scope of the defense of patent misuse, but merely

provides a safe harbor against the charge of patent misuse for certain kinds of conduct by patentees, the statute makes clear that the defense of patent misuse differs from traditional antitrust law principles in an important respect, as applied to tying arrangements involving patent rights. In the case of an antitrust claim based on a tying arrangement involving patent rights, this court has held that ownership of a patent on the tying good is presumed to give the patentee monopoly power. See Indep. Ink, Inc. v. Ill. Tool Works, Inc., 396 F.3d 1342, 1349 n.7 (Fed. Cir.), cert. granted, 125 S. Ct. 2937 (2005). Section 271 (d)(5) makes clear, however, that such a presumption does not apply in the case of patent misuse. To establish the defense of patent misuse, the accused infringer must show that the patentee has power in the market for the tying product. See id. at 1349 n.7.

Philips argues briefly that it lacks market power and that it is thus shielded from liability by section 271(d)(5). Based on detailed analysis by the administrative law judge, however, the Commission found that Philips has market power in the relevant market and that section 271(d)(5) is therefore inapplicable to this case. We sustain that ruling.

Philips contends that at the time Philips and Sony first created their package license arrangements, CDs had significant competition among computer data storage devices and thus Philips lacked market power in the market for computer data storage discs. However, Philips first created the package licenses long before GigaStorage and Princo entered into their agreements. According

to the administrative law judge, the patent package arrangements were instituted in the early 1990s. Yet Princo did not enter into its agreement until June of 1997, and GigaStorage did not enter into its licensing agreement until October of 1999. Thus, any lack of market power that Philips and its colicensors may have had in the early 1990s is irrelevant to the situation in the late 1990s, when the parties entered into the agreements at issue in this case. At that time, according to the administrative law judge's well-supported finding, compact discs had become "unique products [with] no close practice substitutes." Philips's argument about lack of market power is therefore unpersuasive, and for that reason section 271(d)(5) does not provide Philips a statutory safe haven from the judicially created defense of patent misuse. [111]

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[111] Before the Commission, Philips argued that section 271(d)(5) abolished the doctrine of per se patent misuse as applied to tying arrangements. In making that argument, Philips relied heavily on the legislative history of the 1988 Act that adopted section 271(d)(5). Because Philips has not renewed that argument in this court, we do not address it, although we note that the legislative history cited by Philips before the Commission indicates congressional skepticism about treating tying arrangements in the context of patent licensing as per se patent misuse, rather than analyzing such arrangements under the rule of reason. See 134 Cong. Rec. 32,294-95 (1988) (statement of Rep. Kastenmeier); id. at 32,471 (statement of Sen. DeConcini); id. at 32,471-72 (statement of Sen. Leahy).

Apart from its specific challenge to the Commission's ruling on the market power issue, Philips launches a more broad-based attack on the Commission's conclusion that Philips's patent licensing policies constitute per se patent misuse. In so doing, Philips makes essentially two arguments: first, that the Commission was wrong as a legal matter in ruling that the package licensing arrangements at issue in this case are among those few practices that the courts have identified as so clearly anticompetitive as to warrant being condemned as per se illegal; and second, that the Commission erred as a factual matter in concluding that Philips's package licensing arrangements reflect the use of market power in one market to foreclose competition in a separate market. We address the two arguments separately.

A

In its brief, the Commission argues that it is "hornbook law" that mandatory package licensing has been held to be patent misuse. While that broad characterization can be found in some treatises, see 6 Donald S. Chisum, Chisum on Patents § 19.04[3] (2003), cited in C.R. Bard, Inc., 157 F.3d at 1373; 8 Ernest B. Lipscomb III, Lipscomb's Walter on Patents § 28:27 (3d ed. 1989 & Supp. 2003), Philips invites us to consider whether that broad proposition is sound. Upon consideration, we conclude that the proposition as applied to the circumstances of this case is not supported by precedent or reason.

In its opinion, the Commission acknowledged that the Virginia Panel case and many other patent tying cases "involve a tying patent and a tied product, rather than a tying patent and a tied patent." (emphasis in original). The Commission nonetheless concluded that "finding patent misuse based on a tying arrangement between patents in a mandatory package license is a reasonable application of Supreme Court precedent." In so ruling, the Commission relied primarily on two Supreme Court cases: United States v. Paramount Pictures, Inc., 334 U.S. 131, 156-59 (1948), and United States v. Loew's, Inc., 371 U.S. 38, 44-51 (1962). Those cases condemned the practice of "block-booking" movies to theaters (in the Paramount case) and to television stations (in the Loew's case) as antitrust violations.

Block-booking is the practice in which a distributor licenses one feature or group of features to exhibitors on the condition that the exhibitors agree to license another (presumably inferior) feature or group of features released by the distributor during a given period. In Paramount and Loew's, the Court held that block-booking, as practiced in those cases, was per se illegal. The Commission reasoned that the practice of block-booking that was the focus of the Court's condemnation in Paramount and Loew's is similar to the package licensing agreements at issue in this case and that under the analysis employed in Paramount and Loew's, Philips's package licensing agreements must be condemned as per se patent misuse.

We do not agree with the Commission that the decisions in Paramount and Loew's govern this case. In Paramount, the district court held that the defendant movie distributor had engaged in unlawful conduct because it offered to permit exhibitors to show the films they wished to license only if they agreed to license and exhibit other films that they were not interested in licensing. The Supreme Court affirmed that ruling. The Court held that block-booking was illegal because it "prevents competitors from bidding for single features on their individual merits," and because it "adds to the monopoly of a single copyrighted picture that of another copyrighted picture which must be taken and exhibited in order to secure the first." 334 U.S. at 156-57. The result, the Court explained, "is to add to the monopoly of the copyright in violation of the principle of the patent cases involving tying clauses." Id. at 158.

Because the block-booking arrangement at issue in Paramount required the licensee to exhibit all of the films in the group for which a license was taken, the Paramount block-booking was more akin to a tying arrangement in which a patent license is tied to the purchase of a separate product, rather than to an arrangement in which a patent license is tied to another patent license. Indeed, all of the patent tying cases to which the Supreme Court referred in Paramount involved tying arrangements in which, as the Court described them, "the owner of a patent [conditioned] its use on the purchase or use of patented or unpatented materials." 334 U.S. at 157. Because the arrangement in the Paramount case was equivalent in substance to a patent-to

product tying arrangement, Paramount does not stand for the proposition that a pure patent-to-patent tying arrangement, such as Philips's package licensing agreement, is per se unlawful.[1]

Philips gives its licensees the option of using any of the patents in the package, at the licensee's option. Philips charges a uniform licensing fee to manufacture discs covered by its patented technology, regardless of which, or how many, of the patents in the package the licensee chooses to use in its manufacturing process. In particular, Philips's package licenses do not require that licensees actually use the technology covered by any of the patents that the Commission characterized as nonessential. In that respect, Philips's licensing agreements are different from the agreements at issue in Paramount, which imposed an obligation on the purchasers of package licenses to exhibit films they did not wish to license. That obligation not only extended the exclusive right in one product to products in which the distributor did not have

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[1] The Commission argues that the Supreme Court's later decision in Automatic Radio Co. v. Hazeltine, 339 U.S. 827 (1950), supports its broad interpretation of the Paramount case because the Supreme Court in Automatic Radio characterized Paramount as having "condemned" an arrangement "conditioning the granting of a license under one patent upon the acceptance of another and different license." Id. at 830-31. We do not, however, interpret that shorthand characterization of Paramount as effecting a broadening of the holding of the earlier case and an extension of its rationale to a class of cases far beyond Paramount's facts.

exclusive rights, but it also precluded exhibitors, as a practical matter, from exhibiting other films that they may have preferred over the tied films they were required to exhibit. Because Philips's package licensing agreements do not compel the licensees to use any particular technology covered by any of the licensed patents, the Paramount case is not a sound basis from which to conclude that the package licensing arrangements at issue in this case constitute patent misuse per se.

In the Loew's case, the district court determined that the licensee television stations were required to pay fees not only for the feature films they wanted, but also for additional, inferior films. As in Paramount, the fact that the package arrangement required the television stations to purchase exhibition rights for the package at a price that was greater than the price attributable to the desired films made the tying arrangement very much like a tying arrangement involving products. Thus, the Supreme Court explained that a "substantial portion of the licensing fees represented the cost of the inferior films which the stations were required to accept." Lowe's, 371 U.S. at 49. Following the approach employed in Paramount, the Supreme Court applied the principles of cases involving tying arrangements between patents and unpatented products and concluded that the tying arrangements in the case before it had all the anticompetitive features of the block-booking arrangements in Paramount and no redeeming procompetitive features.

In this case, unlike in Loew's, there is no evidence that a portion of the royalty was attributable to the patents that the Commission characterized as nonessential. While the administrative law judge found that GigaStorage "inquired into obtaining a license to less than all of the patents on Philips's patent list," the administrative law judge noted that GigaStorage did so because it "hoped that by eliminating some patents the royalty rate would be lower." There is no evidence that GigaStorage had any basis for its expectation that a smaller patent package might result in a lower royalty rate. In fact, the administrative law judge found that Philips had responded to that overture from GigaStorage by explaining that "the royalty is the same regardless of the number of patents used." Moreover, the administrative law judge found that the royalty rate for licensing Philips's patents "remains the same regardless of which option(s) in the agreement one selects," and that the royalty rate "does not increase or decrease if more or fewer patents are used." Thus, it is clear that the royalty charged by Philips was not increased because of the inclusion of the Farla, Iwasaki, Yamamoto, and Lokhoff patents. There is therefore no basis for conjecture that a hypothetical licensing fee would have been lower if Philips had offered to license the patents on an individual basis or in smaller packages.

Aside from Paramount and Loew's, the Commission relies on cases involving tying arrangements in which the patent owner conditions the availability of a patent license on the patentee's agreement to purchase a staple item of commerce

from the patentee. See Va. Panel, 133 F.3d at 869; Senza-Gel Corp. v. Seiffhart, 803 F.2d 661 (Fed. Cir. 1986). Those cases, however, are readily distinguishable because of the fundamental difference between an obligation to purchase a product and the extension of a nonexclusive license to practice a patent.

A nonexclusive patent license is simply a promise not to sue for infringement. See Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1552 (Fed. Cir. 1995) (en banc); Spindelfabrik Suessen-Schurr Stahlecker & Grill GmbH v. Schubert & Salzer Maschinenfabrik Atkiengesellschaft, 829 F.2d 1075, 1081 (Fed. Cir. 1987). The conveyance of such a license does not obligate the licensee to do anything; it simply provides the licensee with a guarantee that it will not be sued for engaging in conduct that would infringe the patent in question.

In the case of patent-to-product tying, the patent owner uses the market power conferred by the patent to compel customers to purchase a product in a separate market that the customer might otherwise purchase from a competitor. United States v. U.S. Gypsum Co., 333 U.S. 364, 400 (1948); Int'l Salt Co. v. United States, 332 U.S. 392, 395 (1947); Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 493 (1942). The patent owner is thus able to use the market power conferred by the patent to foreclose competition in the market for the product.

By contrast, a package licensing agreement that includes both essential and nonessential patents does not impose any requirement on the licensee. It does not bar the licensee from using any alternative

technology that may be offered by a competitor of the licensor. Nor does it foreclose the competitor from licensing his alternative technology; it merely puts the competitor in the same position he would be in if he were competing with unpatented technology.

A package license is in effect a promise by the patentee not to sue his customer for infringing any patents on whatever technology the customer employs in making commercial use of the licensed patent. That surrender of rights might mean that the customer will choose not to license the alternative technology offered by the patentee's competition, but it does not compel the customer to use the patentee's technology. The package license is thus not anticompetitive in the way that a compelled purchase of a tied product would be.

Contrary to the Commission's characterization, the intervenors were not "forced" to "take" anything from Philips that they did not want, nor were they restricted from obtaining licenses from other sources to produce the relevant technology. Philips simply provided that for a fixed licensing fee, it would not sue any licensee for engaging in any conduct covered by the entire group of patents in the package. By analogy, if Philips had decided to surrender its "nonessential" patents or had simply announced that it did not intend to enforce them, there would have been no way for the manufacturers to decline or reject Philips's decision. Yet the economic effect of the package licensing arrangement for Philips's patents is not fundamentally different from the effect that such decisions would have had on third parties seeking to compete with the technology covered by

those "nonessential" patents. Thus, we conclude that the Commission erred when it characterized the package license agreements as a way of forcing the intervenors to license technology that they did not want in order to obtain patent rights that they did.[2]

The Commission stated that it would not have found the package licenses to constitute improper tying if Philips had offered to license its patents on an individual basis, as an alternative to licensing them in packages. The Commission's position, however, must necessarily be based on an assumption that, if the patents were offered on an individual basis, individual patents would be offered for a lower price than the patent packages as a whole. If that assumption were not implicit in the Commission's conclusion, the Commission would be saying in effect that it would be unlawful for Philips to charge the same royalty for its essential patents that it charges for its patent packages and to offer

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[2] The effect of a nonexclusive license was different before the Supreme Court, in Lear, Inc. v. Adkins, 395 U.S. 653 (1969), abolished the patent doctrine of licensee estoppel. Before Lear, a nonexclusive license had a legal effect that made it more than a mere covenant by the licensee not to sue. Acceptance of the license barred the licensee from challenging the validity of the patent. Some of the early decisions regarding patent-to-patent tying arrangements appear to have been based, at least in part, on that feature of pre-Lear patent licenses. See, e.g., Am. Securit Co. v. Shatterproof Glass Corp., 268 F.2d 769, 777 (3d Cir. 1959); Int'l Mfg. Co. v. Landon, 336 F.2d 723, 731 (9th Cir. 1964); see also Duplan Corp. v. Deering Milliken, Inc., 444 F. Supp. 648, 699 (D.S.C. 1977), aff'd in pertinent part, 594 F.2d 979 (4th Cir. 1979). In the post-Lear era, the "acceptance" of a license has no such restrictive effect on the licensee's freedom.

the nonessential patents for free. Yet that sort of pricing policy plainly would not be unlawful. See Directory Sales Mgmt. Corp. v. Ohio Bell Tel. Co., 833 F.2d 606, 609-10 (6th Cir. 1987).[3]

To the extent that the Commission's decision is based on an assumption that individual licenses would necessarily be available for a lower price than package licenses, that assumption is directly contrary to the evidence and even to the administrative law judge's findings of fact. As noted above, the administrative law judge found that the royalty rate under Philips's package licenses depended on the number of discs the manufacturer produced under the authority of the license, not the number of individual patents the manufacturer used to produce those discs. That is, the royalty rate did not vary depending on whether the licensees used only the essential patents or used all of the patents in the package. Thus, it seems evident that if Philips

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[3] Of course, in a tying case if the evidence shows that the price of a bundled product reflects any of the cost of the tied product, "customers are purchasing the tied product, even if it is touted as being free." Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Prof'l Publ'ns, Inc., 63 F.3d 1540, 1548 (10th Cir. 1995), citing 3 Phillip E. Areeda & Donald F. Turner, Antitrust Law ¶ 733a (1978) (tying may exist "when a machine is sold or leased at a price that covers 'free' servicing"); see also United States v. Microsoft Corp., 253 F.3d 34, 68 (D.C. Cir. 2001) ("the antitrust laws do not condemn even a monopolist for offering its product at an attractive price, and we therefore have no warrant to condemn Microsoft for offering either IE or the IEAK free of charge"). The evidence in this case, however, does not indicate that there is a hidden charge for the so-called nonessential patents in the Philips patent packages.

were forced to offer licenses on an individual basis, it would continue to charge the same per unit royalty regardless of the number of patents the manufacturer chose to license. That alteration in Philips's practice would have absolutely no effect on the would-be competitors who wished to offer alternatives to the technology represented by Philips's so-called nonessential patents, since those patents would effectively be offered for free, and the competitors would therefore still have to face exactly the same barriers—the availability of a free alternative to the technology that they were trying to license for a fee.

More generally, the Commission's assumption that a license to fewer than all the patents in a package would presumably carry a lower fee than the package itself ignores the reality that the value of any patent package is largely, if not entirely, based on the patents that are essential to the technology in question. A patent that is nonessential because it covers technology that can be fully replaced by alternative technology that is available for free is essentially valueless. A patent that is nonessential because it covers technology that can be fully replaced by alternative technology that is available through a license from another patent owner has value, but its value is limited by the price of the alternative technology. Short of imposing an obligation on the licensor to make some sort of allocation of fees across a group of licenses, there is no basis for the Commission to conclude that a smaller group of the licenses—the so-called "essential" licenses—would have been available for a

lower fee if they had not been "tied to" the so-called nonessential patents.

It is entirely rational for a patentee who has a patent that is essential to particular technology, as well as other patents that are not essential, to charge what the market will bear for the essential patent and to offer the others for free. Because a license to the essential patent is, by definition, a prerequisite to practice the technology in question, the patentee can charge whatever maximum amount a willing licensee is able to pay to practice the technology in question. If the patentee allocates royalty fees between its essential and nonessential patents, it runs the risk that licensees will take a license to the essential patent but not to the nonessential patents. The effect of that choice will be that the patentee will not be able to obtain the full royalty value of the essential patent. For the patentee in this situation to offer its nonessential patents as part of a package with the essential patent at no additional charge is no more anticompetitive than if it had surrendered the nonessential patents or had simply announced a policy that it would not enforce them against persons who licensed the essential patent. In either case, those offering technology that competed with the nonessential patents would be unhappy, because they would be competing against free technology. But the patentee would not be using his essential patent to obtain power in the market for the technology covered by the nonessential patents. This package licensing arrangement cannot fairly be characterized as an exploitation of power in one

market to obtain a competitive advantage in another.[4]

Aside from the absence of evidence that the package licensing arrangements in this case had the effect of impermissibly broadening the scope of the "essential" patents with anticompetitive effect, Philips argues that the Commission failed to acknowledge the unique procompetitive benefits associated with package licensing. Philips points to the federal government's guidelines for licensing intellectual property, which recognize that patent packages "may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. By promoting the dissemination of technology, cross-licensing and pooling arrangements are often procompetitive." U.S. Department of Justice and Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5 (1995);

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[4] The implication of the Commission's decision is that a party with both an essential patent and a nonessential patent is not allowed to package the two together and only offer the package for a single price. That would have the perverse effect of potentially putting a party owning both an essential patent and a nonessential but related patent in a worse position than a party owning only the essential patent. The party owning only the essential patent would be free to charge any licensing fee up to the maximum that a manufacturer would be willing to pay to practice the patented technology, while a party owning both the essential patent and a nonessential patent would be barred from extracting that maximum licensing fee for its essential patent and assuring the manufacturer that it would not be subject to suit on the nonessential patent.

see also Herbert Hovenkamp, IP and Antitrust § 34.2c, at 34-7 (2004).

Philips introduced evidence that package licensing reduces transaction costs by eliminating the need for multiple contracts and reducing licensors' administrative and monitoring costs. See Tex. Instruments, Inc. v. Hyundai Elecs., 49 F. Supp. 2d 893, 901 (E.D. Tex. 1999) (describing how "extremely expensive and time-consuming" it is for parties to license and manage the licensing of technology by using individual patents and how it is preferable to employ a patent portfolio). Package licensing can also obviate any potential patent disputes between a licensor and a licensee and thus reduce the likelihood that a licensee will find itself involved in costly litigation over unlicensed patents with potentially adverse consequences for both parties, such as a finding that the licensee infringed the unlicensed patents or that the unlicensed patents were invalid. See Steven C. Carlson, Patent Pools and the Antitrust Dilemma, 16 Yale J. on Reg. 359, 379-81 (1999). Thus, package licensing provides the parties a way of ensuring that a single licensing fee will cover all the patents needed to practice a particular technology and protecting against the unpleasant surprise for a licensee who learns, after making a substantial investment, that he needed a license to more patents than he originally obtained. Finally, grouping licenses in a package allows the parties to price the package based on their estimate of what it is worth to practice a particular technology, which is typically much easier to calculate than determining the marginal benefit provided by a license to each individual patent. In short, package

licensing has the procompetitive effect of reducing the degree of uncertainty associated with investment decisions.

The package licenses in this case have some of the same advantages as the package licenses at issue in the Broadcast Music case. The Supreme Court determined in that case that the blanket copyright package licenses at issue had useful, procompetitive purposes because they gave the licensees "unplanned, rapid, and indemnified access to any and all of the repertory of [musical] compositions, and [they gave the owners] a reliable method of collecting for the use of the their copyrights." 441 U.S. at 20. While "[i]ndividual sales transactions [would be] quite expensive, as would be individual monitoring and enforcement," a package licensing agreement would ensure access and save costs. Id. Hence, the Supreme Court determined that such conduct should fall under "a more discriminating examination under the rule of reason." Id. at 24.

In light of the efficiencies of package patent licensing and the important differences between product-to-patent tying arrangements and arrangements involving group licensing of patents, we reject the Commission's conclusion that Philips's conduct shows a "lack of any redeeming virtue" and should be "conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use." N. Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958). We therefore hold that the analysis that led the Commission to apply the

rule of per se illegality to Philips's package licensing agreements was legally flawed.[5]

B

In the alternative, Philips argues that the Commission's finding of per se patent misuse was not justified by the facts of this case. In particular, Philips contends that the evidence did not show that there were commercially viable alternatives to the technology covered by the so-called "nonessential" patents in the Philips licensing packages that any of its licensees would have preferred to use.

In order to show that a tying arrangement is per se unlawful, a complaining party must demonstrate that it links two separate products and has an anticompetitive effect in the market for the second product. The Supreme Court explained that the "essential characteristic" of an invalid tying arrangement

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[5] The Supreme Court recently granted certiorari in Independent Ink, Inc. v. Illinois Tool Works, Inc., 396 F.3d 1342 (Fed. Cir.), cert granted, 125 S. Ct. 2937 (2005), a case involving a tying arrangement involving a patent and an unpatented product. It is possible that the Supreme Court's decision in that case will offer some guidance with respect to the patent misuse issue presented by this case, but because the circumstances of the two cases are quite different, we have determined that the proper course is to resolve this appeal without waiting for the Supreme Court's decision in Independent Ink.

> lies in the seller's exploitation of its control over the tying product to force the buyer in to the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms. When such "forcing" is present, competition on the merits in the market for the tied item is restrained . . . .

Jefferson Parish, 466 U.S. at 12; id. at 20-21 ("[A] tying arrangement cannot exist unless two separate markets have been linked."); B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1426 (Fed. Cir. 1997) (impermissible tying in the context of patent misuse if patentee uses a patent "which enjoys market power in the relevant market . . . to restrain competition in an unpatented product"). The Commission found that the "nonessential" patents, i.e., the Farla, Iwasaki, Yamamoto, and Lokhoff patents, constituted separate products from the "essential" patents in the package and that the package licensing agreements adversely affected competition in the market for the nonessential technology.[6] The Commission's analysis of that factual issue was flawed, however.

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[6] The intervenors note that "there existed a number of commercially-available CD-R discs utilizing alternative technology that did not infringe these supposedly essential patents." For support, intervenors cite the opinion of the administrative law judge, who determined that two patents held by Taiyo Yuden were not essential. Because the Commission did not address those patents, however, they are not relevant to this appeal.

Patents within a patent package can be regarded as "nonessential" only if there are "commercially feasible" alternatives to those patents. See Int'l Mfg. Co. v. Landon, 336 F.2d 723, 729 (9th Cir. 1964). If there are no commercially practicable alternatives to the allegedly nonessential patents, packaging those patents together with so-called essential patents can have no anticompetitive effect in the marketplace, because no competition for a viable alternative product is foreclosed. In such a case, the only effect of finding per se patent misuse is to give licensees a way of avoiding their obligations under the licensing agreements, with no corresponding benefit to competition in any real-world market.

The Department of Justice has recognized that the availability of commercially viable alternative technology is relevant to the analysis of package licensing agreements. In particular, the Department has stated that patent packages do not have the undesirable effects of tying if they include patents to technology for which there is no practical or realistic alternative. See, e.g., Business Review Letter, U.S. Department of Justice, Antitrust Division (Dec. 16, 1998). That principle is consistent with the main purpose of the separate-products inquiry in tying cases generally, which is to ensure that conduct is not condemned as anticompetitive "unless there is sufficient demand for the purchase of [the tied product] separate from the [tying product] to identify a distinct product market in which it is efficient to offer [the tied product]." Jefferson Parish, 466 U.S. at 21-22; see Mallinckrodt, 976 F.2d at 704 (tying is misuse only when the patentee uses its patent to

obtain "market benefit" beyond that conferred by the patent).

In this case, the evidence did not show that there were commercially viable substitutes for the Farla, Iwasaki, Yamamoto, and Lokhoff patents that disc manufacturers wished to use in making compact discs compliant with the Orange Book standards. There was thus insufficient evidence that including the four "nonessential" patents in the Philips patent packages had an actual anticompetitive effect. That is, the evidence did not show that there were commercially viable substitutes for those four "nonessential" patents that disc manufacturers wished to use in making compact discs compliant with the Orange Book standards.

Two of those four patents, the Farla and Iwasaki patents, cover a method of controlling the recording of information onto compact discs, i.e., a "write strategy," including an "optimum power control procedure."[7] The Commission found that

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[7] In its amicus curiae brief, the New York Intellectual Property Association notes that, unlike the other three allegedly nonessential patents, the Iwasaki patent would expire after all of the undisputedly essential patents. As a result, the presence of the Iwasaki patent in a patent licensing package could have the effect of extending the obligation to pay royalties beyond the expiration date of the "essential" patents. A provision requiring that royalties be paid beyond the life of a patent has been held to be unenforceable. See Brulotte v. Thys Co., 379 U.S. 29, 30 (1964). However, because neither the Commission nor the administrative law judge addressed the impact of that potential temporal extension of the royalty obligation, and none of the parties addressed that issue on appeal in their briefs, we do not address the issue here.

another company, Calimetrics, Inc., had developed a commercially viable, alternative method of performing the write strategy and the optimum power control procedure that is not covered by the Farla and Iwasaki patents. In making that finding, the Commission relied solely on the testimony of Dr. Stephen McLaughlin, Calimetrics's principal scientist, who had helped to create the technology in question. Dr. McLaughlin testified that Calimetrics had created a general write strategy; that "in the development of [that] technology [Calimetrics] determined that this write strategy was applicable to CD-R and CD-RW systems"; and that the company has "spent an enormous amount of effort promoting [its] idea . . . ." While that testimony was sufficient to support the Commission's finding that there was an alternative technology to the Farla and Iwasaki patents, it did not show that the Calimetrics technology was an alternative that Philips's licensees wished to use in place of the technology covered by the Farla and Iwasaki patents. The Commission did not point to any evidence that any licensee or potential licensee asked to have any of the four "nonessential" patents removed from the package license and that Philips refused to do so. Although, as noted, GigaStorage asked about obtaining a license to only certain patents, in the hope that by eliminating some patents the royalty rate would be lower, the evidence did not show that GigaStorage's request related to the four "nonessential" patents or that GigaStorage had any interest in licensing Calimetrics's technology.

Dr. McLaughlin testified, regarding a hypothetical situation, that "[w]hen we go and try to

license this technology, the companies say we have technology that performs a function of this type, and . . . I presume they would be referring to [the nonessential CD-R/CD-RW] patents." That testimony, however, falls short of showing that any of Philips's licensees were forced by the package license agreements to license the Farla and Iwasaki patents when they would have preferred to use Calimetrics's technology. Dr. McLaughlin did not testify as to even a single specific instance on which a disc manufacturer expressed a preference for the Calimetrics technology but was dissuaded from licensing it by Philips's insistence on licensing the Farla and Iwasaki patents as part of its package license arrangements. The evidence thus did not show that there was a demand for the Calimetrics technology that went unmet because of the coercive effect of Philips's inclusion of the Farla and Iwasaki patents in its package licensing agreements.

As for the Yamamoto patent, which covers a method of creating master discs by using one laser beam, the Commission again relied on the testimony of Dr. McLaughlin. The Commission found that Calimetrics had developed a commercially viable alternative method of creating master discs by using two laser beams. Dr. McLaughlin's testimony, however, does not support the Commission's finding. Dr. McLaughlin stated that it was "fairly easy to conceive of alternative methods for implementing the functionality of the intention of . . . what [the Yamamoto] patent is directed towards" and that it would "certainly [be] possible to do this using two beams . . . ." Yet the mere possibility that alternative technology might at some point become

available is not sufficient to support a finding that at the time the Philips licenses were executed, there was actually a commercially available alternative to the technology claimed in the Yamamoto patent.

Finally, the Commission found that the Lokhoff patent was not "technically essential" to manufacturing discs compliant with the Orange Book standard. The Lokhoff patent covers a system for providing copy protection by placing a "copy bit" into a compact disc for the purpose of determining the type of information that may be received for recording. The Commission found that an alternative exists to the Lokhoff patent. In so doing, the Commission again relied on testimony by Dr. McLaughlin, who stated that copy protection could be achieved by "embedding copy protection and user data," instead of by using a copy bit. Dr. McLaughlin's testimony, however, does not establish that the alternative technology was commercially available to be substituted for the technology of the Lokhoff patent. He stated that the alternative embedding method was a "very wide area of research. There's a lot of activity going on these days in using this general approach . . . ." That testimony indicates research interest in a possible approach to solving the problem of embedding, but it does not establish the existence of an available, commercially practicable alternative to Philips's technology.

Beyond the absence of factual support for the Commission's findings, the Commission's analysis of the four "nonessential" patents demonstrates a more fundamental problem with applying the per se rule of illegality to patent packages such as the ones at

issue in this case. If a patentholder has a package of patents, all of which are necessary to enable a licensee to practice particular technology, it is well established that the patentee may lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products. See Landon, 336 F.2d at 729. Yet over time, the development of alternative technology may raise questions whether some of the patents in the package are essential or whether, as in this case, there are alternatives available for the technology covered by some of the patents. Indeed, in a fast-developing field such as the one at issue in this case, it seems quite likely that questions will arise over time, such as what constitutes an "essential" patent for purposes of manufacturing compact discs compliant with the Orange Book standard. Roger B. Andewelt, Analyzing Patent Pools Under the Antitrust Laws, 53 Antitrust L.J. 611, 616 (1985) ("the line between competitive patents and blocking or complementary patents is frequently very difficult to draw"). Under the Commission's approach, an agreement that was perfectly lawful when executed could be challenged as per se patent misuse due to developments in the technology of which the patentees are unaware, or which have just become commercially viable. Such a rule would make patents subject to being declared unenforceable due to developments that occurred after execution of the license or were unknown to the parties at the time of licensing. Not only would such a rule render licenses subject to invalidation on grounds unknown at the time of licensing, but it would also provide a strong incentive to litigation by any licensee, since the

reward for showing that even a single license in a package was "nonessential" would be to render all the patents in the package unenforceable. For that reason as well, we reject the Commission's ruling that package agreements of the sort entered into by Philips and the intervenors must be invalidated on the ground that they constitute per se patent misuse.

III

In the alternative, the Commission held that Philips's package licensing agreements constituted patent misuse under the rule of reason. The Commission's analysis under the rule of reason largely tracked the analysis that led it to conclude that the package licensing agreements constituted per se patent misuse.

As in the case of its ruling on per se patent misuse, the fulcrum of the Commission's conclusion that Philips was guilty of patent misuse under the rule of reason was its conclusion that the package licenses at issue in this case had "the anticompetitive effect of foreclosing competition in the alternative technology that competes with the technology covered by a nonessential patent that was included as a so-called 'essential' patent." On that issue, the Commission adopted the administrative law judge's analysis and conclusions with respect to the Farla, Iwasaki, Yamamoto, and Lokhoff patents, but it took no position with respect to other patents that the administrative law judge found to be nonessential.

Focusing particularly on the Farla and Iwasaki patents, the Commission found that those patents were not essential to manufacturing CD-Rs

and CD-RWs compliant with the Orange Book standards and that including those patents in the patent packages foreclosed competition by Calimetrics. The Commission briefly addressed the assertedly procompetitive effects of the package licensing arrangements but upheld the administrative law judge's conclusion that those arrangements had a net anticompetitive effect because "the convenience to manufacturers of a broad package of patents was outweighed by the anticompetitive effect on alternative technologies of packaging nonessential patents with essential patents."

Under the rule of reason, the finder of fact must determine if the practice at issue is "reasonably within the patent grant, i.e., that it relates to subject matter within the scope of the patent claims." Va. Panel, 133 F.3d at 869, quoting Mallinckrodt, 976 F.2d at 708. If the practice does not "broaden the scope of the patent, either in terms of covered subject matter or temporally," then the patentee is not chargeable with patent misuse. Va. Panel, 133 F.3d at 869. More specifically, "the finder of fact must decide whether the questioned practice imposes an unreasonable restraint on competition, taking into account a variety of factors, including specific information about the relevant business, its condition before and after the restraint was imposed, and the restraint's history, nature and effect." Va. Panel, 133 F.3d at 869, quoting State Oil Co. v. Khan, 522 U.S. 3, 10 (1997); see also Monsanto Co., 363 F.3d at 1341.

The Commission's rule of reason analysis is flawed for two reasons. Most importantly, its conclusion was largely predicated on the anticompetitive effect on competitors offering alternatives to the four so-called nonessential patents in the Philips patent packages. Yet, as we have already held, the evidence did not show that including those patents in the patent packages had a negative effect on commercially available technology. The Commission assumed that there was a foreclosure of competition because compact disc manufacturers would be induced to accept licenses to the technology covered by the Farla and Iwasaki patents and therefore would be unwilling to consider alternatives. As noted, however, there was no evidence before the Commission that any manufacturer had actually refused to consider alternatives to the technology covered by those patents or for that matter that any commercially viable alternative actually existed.

In addition, as in its per se analysis, the Commission did not acknowledge the problems with licensing patents individually, such as the transaction costs associated with making individual patent-by-patent royalty determinations and monitoring possible infringement of patents that particular licensees chose not to license. The Commission also did not address the problem, noted above, that changes in the technology for manufacturing compact discs could render some patents that were indisputably essential at the time of licensing arguably nonessential at some later point in the life of the license. To hold that a licensing agreement that satisfied the rule of reason

when executed became unreasonable at some later point because of technological development would introduce substantial uncertainty into the market and displace settled commercial arrangements in favor of uncertainty that could only be resolved through expensive litigation.

Finally, the Commission failed to consider the efficiencies that package licensing may produce because of the innovative character of the technology at hand. Given that the technology surrounding the Orange Book standard was still evolving, there were many uncertainties regarding what patents might be needed to produce the compact discs. As noted, package license agreements in which the royalty was based on the number of units produced, not the number of patents used to produce them, can resolve in advance all potential patent disputes between the licensor and the licensee, whereas licensing patent rights on a patent-by-patent basis can result in continuing disputes over whether the licensee's technology infringes certain ancillary patents owned by the licensor that are not part of the group elected by the licensee.

We therefore conclude that the line of analysis that the Commission employed in reaching its conclusion that Philips's package licensing agreements are more anticompetitive than procompetitive, and thus are unlawful under the rule of reason, was predicated on legal errors and on factual findings that were not supported by substantial evidence. For these reasons, we cannot uphold the Commission's decision that Philips's

patents are unenforceable because of patent misuse under the rule of reason.

Because the Commission did not address all of the issues presented by the administrative law judge's decision under both the per se and rule of reason analysis, further proceedings before the Commission may be necessary with respect to whether Philips's patents are enforceable and, if so, whether Philips is entitled to any relief from the Commission. Accordingly, we reverse the Commission's ruling on patent misuse for the reasons stated, and we remand this case to the Commission for further proceedings consistent with this opinion.

REVERSED AND REMANDED.

APPENDIX E

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	)	
CERTAIN RECORDABLE COMPACT DISCS AND REWRITABLE COMPACT DISCS	)	**INV. NO. 337-TA-474**

COMMISSION OPINION

This section 337 investigation is before the Commission for final disposition of the issues under review and, if necessary, for determinations on remedy, the public interest, and bonding. We have determined to affirm the presiding administrative law judge's ("ALJ's") conclusion that the asserted patents in this investigation are unenforceable for

patent misuse, and consequently find no violation of section 337 of the Tariff Act of 1930.

PROCEDURAL HISTORY

The Commission instituted this investigation on July 26, 2002, based on a complaint filed by U.S. Philips Corporation of Tarrytown, NY ("Philips" or "complainant"). 67 *Fed. Reg.* 48,948 (2002). The complaint, as supplemented, alleged violations of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain recordable compact discs ("CD-Rs") and rewritable compact discs ("CD-RWs") by reason of infringement of claims of six U.S. patents (collectively, "the asserted patents"): claims 1, 5, and 6 of U.S. Patent No. 4,807,209 (issued February 21, 1989) ("the '209 patent"); claim 11 of U.S. Patent No. 4,962,493 (issued October 9, 1990) ("the '493 patent"); claims 1, 2, and 3 of U.S. Patent No. 4,972,401 (issued November 20, 1990) ("the '401 patent"); claims 1, 3, and 4 of U.S. Patent No. 5,023,856 (issued June 11, 1991) ("the '856 patent"); claims 1-5, and 6 of U.S. Patent No. 4,999,825 (issued March 12, 1991) ("the '825 patent"); and claims 20, 23-33, and 34 of U.S. Patent No. 5,418,764 (issued May 23, 1995) ("the '764 patent"). 67 *Fed. Reg.* 48,948 (2002).

The notice of investigation identified 19 respondents, including GigaStorage Corporation Taiwan of Hsinchu, Taiwan; GigaStorage Corporation USA of Livermore, California (collectively, "GigaStorage"); and Linberg Enterprise Inc. of West Orange, New Jersey ("Linberg"). 67 *Fed. Reg.* 48,948 (2002). On August 14, 2002, the ALJ

issued an initial determination ("ID") (Order No. 2) granting a motion to intervene as respondents by Princo Corporation of Hsinchu, Taiwan, and Princo America Corporation of Fremont, California (collectively, "Princo"). That ID was not reviewed by the Commission and thereby became the Commission's determination. GigaStorage, Linberg, and Princo ("respondents") are the only remaining active respondents in this investigation.[1]

The ALJ issued his final ID on October 24, 2003. Although the ALJ found that the domestic industry requirement of section 337 is satisfied in this investigation, that the asserted patent claims are infringed by the accused products, and that the asserted claims are not invalid, he found no violation of section 337 because he concluded that all of the asserted patents are unenforceable by reason of patent misuse on the part of complainant Philips. ID at 139-220.

On November 5, 2003, complainant Philips petitioned for review of the subject ID in part. Respondents and the Commission investigative attorney ("IA") opposed the petition. On December 8, 2003, the ALJ issued his recommended determination on remedy and bonding. On December

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[1] *See* ALJ Order No. 6 (an unreviewed ID terminating eight respondents on the basis of a consent order); ALJ Order No. 17 (an unreviewed ID terminating three respondents on the basis of a consent order and settlement agreement); ALJ Order No. 18 (an unreviewed ID terminating one respondent on the basis of a consent order and settlement agreement); and ALJ Order No. 21 (an unreviewed ID finding four respondents in default).

10, 2003, the Commission determined to review all of the ID's findings of fact and conclusions of law concerning patent misuse. The Commission determined not to review the remainder of the ID. In its review notice, the Commission invited the parties to file written submissions on the issues under review, and it invited interested persons to file written submissions on the issues of remedy, the public interest, and bonding. The Commission also requested briefing from the parties on four questions. Initial submissions were filed on January 9, 2004, and replies were filed on January 16, 2004, and January 20, 2004.

STANDARD ON REVIEW

This investigation is before us on review of the ALJ's final ID on violation, which issued on October 24, 2003. Commission review of an ID is limited to the issues set forth in the notice of review and all subsidiary issues therein. *Certain Bar Clamps, Bar Clamp Pads, and Related Packaging Display and Other Materials,* Inv. No. 337-TA-429, Commission Opinion at 3 (January 1, 2001). "On review, the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the administrative law judge. The Commission may also make any findings or conclusions that in its judgment are proper based on the record in the proceeding." 19 C.F.R. § 210.45(c).

Once the Commission determines to review an initial determination, its review is conducted under a *de novo* standard. *Certain Polyethylene Terephthalate Yarn and Products Containing Same,* Inv. No. 337-

TA-457, Commission Opinion at 9 (June 18, 2002). Upon review the "Commission has 'all the powers which it would have in making the initial determination,' except where the issues are limited on notice or by rule." *Certain Flash Memory Circuits and Products Containing Same,* Inv. No. 337-TA-382, Commission Opinion on the Issues Under Review and on Remedy, the Public Interest, and Bonding at 9-10 (June 2, 1997), USITC Pub. 3046 (July 1997) (quoting *Certain Acid-Washed Denim Garments and Accessories,* Inv. No. 337-TA-324, Commission Opinion at 5 (Nov. 1992)).

As stated in our review notice, we determined to review in part the ALJ's final ID. We thereby adopted as our own the unreviewed portions of the ID. With respect to the portions of the ID that are under review, the ALJ's findings, conclusions, and supporting analysis that are not inconsistent with this opinion are hereby adopted. The ALJ's findings, conclusions, and supporting analysis that are inconsistent with this opinion are not adopted.

ISSUES UNDER REVIEW

The ALJ found that the asserted patents are unenforceable for patent misuse by complainant Philips. he found patent misuse *per se* and also found patent misuse under a "rule of reason" standard. We affirm the ALJ's conclusion that the asserted patents are unenforceable for patent misuse *per se,* but on the ground, discussed below, that complainant's practice of mandatory package licensing constitutes patent misuse *per se* as a tying arrangement between (1) licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange

Book standards[2] and (2) licenses to other patents that are not essential to that activity.[3] We also adopt the ALJ's conclusion that the asserted patents are unenforceable for patent misuse under a rule of reason standard based on the ALJ's analysis of and findings as to the tying arrangement.[4]

I. Analysis of Patent Misuse *Per Se*

Complainant argues that patent misuse *per se* premised on tying arrangements was eliminated by 35 U.S.C. § 271(d)(5). Respondents and the IA oppose this argument. Complainant also contends that, even apart from section 271(d)(5), Federal Circuit case law prohibits finding patent misuse *per se* based on a

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[2] The technical standards for the manufacture of CD-Rs and CD-RWs are set out in two publications that are jointly issued by Philips and Sony Corporation ("Sony"). "Compact Disc Recordable System Description" (RX-407C), which is commonly referred to as Part II of the Orange Book, pertains to CD-Rs. "Compact Disc ReWritable System Description" (RX-408C), which is commonly referred to as Part III of the Orange Book, pertains to CD-RWs. ID at 139-40.

[3] We take no position on the ALJ's conclusion that the asserted patents are unenforceable for patent misuse *per se* based on theories of price fixing and price discrimination.

[4] We take no position on the ALJ's conclusion that the royalty rate structure of the CD-R/RW patent pools is an unreasonable restraint of trade, but adopt those portions of the ALJ's analysis of the royalty rate mechanism under the rule of reason (ID at 213-19) that are relevant to the issue of whether the anticompetitive effects of including nonessential patents in the list of so-called essential patents outweigh the procompetitive effects.

tying arrangement between two patent licenses (as opposed to between a patent license and a product). The IA takes the position that tying arrangements between two patent licenses should not be patent misuse *per se*, but should be analyzed under the rule of reason. Respondents oppose these arguments. For the reasons discussed in part A, *infra*, we conclude that section 271(d)(5) did not eliminate patent misuse *per se* premised on tying arrangements, and in part B, *infra*, we conclude that patent misuse *per se* may be based on a tying arrangement between two patent licenses. In part C, *infra*, we discuss the legal standard for demonstrating a tying arrangement between two patent licenses, and in part D, we apply that standard to the licensing arrangements at issue in this investigation.

A. Tying Arrangements as *Per Se* Patent Misuse

Section 271(d)(5) reads in relevant part as follows:

> No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having . . . conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market

> for the patent or patented product on which the license or sale is conditioned.

35 U.S.C. § 271(d)(5).

As noted, complainant contends that 35 U.S.C. § 271(d)(5) eliminated patent misuse *per se* premised on tying arrangements. Respondents and the IA take the position that section 271(d)(5) did not eliminate patent misuse *per se* based on tying arrangements. Complainant further argues that, even apart from section 271(d)(5), Federal Circuit case law prohibits finding patent misuse *per se* based on a tying arrangement between two patent licenses. The IA argues that, even if section 271(d)(5) does not eliminate patent misuse *per se* based on tying arrangements, a tying arrangement between two patent licenses (as opposed to a tying arrangement between a patent license and a product) should not be deemed patent misuse *per se*.

We conclude, as did the ALJ, that under section 271(d)(5) an infringement action may be precluded by a patent misuse defense based on a patent tying arrangement that is found to be illegal *per se*. Pursuant to section 271(d)(5), the defense requires a finding of market power based on an analysis that includes an inquiry into whether substitutes for the patented product are available.

Section 271(d)(5) expressly refers to conditioning a patent license on (1) the purchase of a separate product or (2) the acquisition of another patent license. Thus, it encompasses both patent-product and patent-patent tie-ins with respect to a defense of patent misuse based on tying

arrangements. In *Virginia Panel Corp. v. MAC Panel Co.*, the Federal Circuit reversed a district court's conclusion that a proposed licensing agreement conditioned on the prospective licensee's purchase of unpatented products constituted patent misuse. 133 F.3d 860, 868 (Fed. Cir. 1998). The Federal Circuit outlined the approaches to the analysis of patent misuse issues as follows:

> The courts have identified certain specific practices as constituting *per se* patent misuse, including so-called "tying" arrangements in which a patentee conditions a license under the patent on the purchase of a separable, staple good, *see, e.g., Morton Salt Co. [v. G.S. Suppiger Co.]*, 314 U.S. [488,] 491 [(1942)], and arrangements in which a patentee effectively extends the term of its patent by requiring post-expiration royalties, *see, e.g., Brulotte v. Thys Co.*, 379 U.S. 29, 33 (1964). Congress, however, has established that other specific practices may not support a finding of patent misuse. *See* 35 U.S.C. § 271(d) (1994); *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 202 (1980) (construing earlier version of § 271(d)). A 1988 amendment to § 271(d) provides that, *inter alia*, in the absence of market power, even a tying arrangement does not constitute patent misuse. *See* 35 U.S.C. § 271(d)(5) (1994) (added by Pub. L. No. 100-703, § 201, 102 Stat. 4676 (1988)).

When a practice alleged to constitute patent misuse is neither *per se* patent misuse nor specifically excluded from a misuse analysis by § 271(d), a court must determine if that practice is "reasonably within the patent grant, *i.e.*, that it relates to subject matter within the scope of the patent claims. *"Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 708 (Fed. Cir. 1992). If so, the practice does not have the effect of broadening the scope of the patent claims and thus cannot constitute patent misuse. *Id.* If, on the other hand, the practice has the effect of extending the patentee's statutory rights and does so with an anti-competitive effect, that practice must then be analyzed in accordance with the "rule of reason." *Id.* Under the rule of reason, "the finder of fact must decide whether the questioned practice imposes an unreasonable restraint on competition, taking into account a variety of factors, including specific information about the relevant business, its condition before and after the restraint was imposed, and the restraint's history, nature, and effect." *State Oil Co. v. Kahn*, 118 S. Ct. 275, 279 (1997) (citing *Arizona* v. *Maricopa County Med. Soc.*, 457 U.S. 332, 343 & n.13 (1982)).

133 F.3d 860, 869 (Fed. Cir. 1997) (parallel citations omitted). In the above-quoted passage, the Federal Circuit recognized that the conditioning of a patent license on the purchase of a separable, staple good was a tying arrangement that constituted *per se* patent misuse, and that section 271(d) added a market power requirement. [5] Thus, the Federal Circuit has concluded that section 271(d) did not eliminate *per se* patent misuse.

In support of its argument that the *per se* rule for patent misuse based on tying was eliminated by section 271(d)(5), complainant relies on the legislative history of the statute and a district court

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[5] As to the proposed licensing arrangement that was alleged to constitute patent misuse in *Virginia Panel*, the court stated that the patentee's "proposal to the [prospective licensee] was not a consummated tying arrangement and for that reason was not *per se* patent misuse." 133 F.3d at 871. The Federal Circuit explained that, unlike the tying cases on which defendant-appellant relied, the patentee and prospective licensee "never entered into any license agreement that required [the prospective licensee] to purchase unpatented, staple goods. *See* 35 U.S.C. § 271(d)(5) (by implication, limiting tying arrangements to the conditioning of an actual license or sale of the patented product)." 133 F.3d at 871. Having determined that the license proposal at issue was not *per se* patent misuse as a tying arrangement, the court went on to that portion of the misuse analysis outlined *supra* that could lead to a rule of reason inquiry: "Furthermore, because [the patentee], on the advice of counsel, voluntarily and unilaterally revoked the proposal to link the license to the purchase of unpatented items, [the patentee's] activities did not extend the scope of its patent rights. Accordingly, we conclude that [the patentee's] truncated negotiations with [the prospective licensee] did not constitute patent misuse." 133 F.3d 871.

case, *Texas Instruments Inc. v. Hyundai Electronics Industries, Co.*, 49 F. Supp.2d 893 (E.D. Tex. 1999)). Complainant submits that the statute adds not just a market power test, but also a rule-of-reason balancing of anticompetitive and pro-competitive effects test. In *Texas Instruments*, the district court dismissed *Virginia Panel* as "merely recogniz[ing] that the courts have *historically* identified tying practices as constituting *per se* patent misuse." 49 F.Supp.2d at 910. (The district court did not address the discussion in *Virginia Panel* of the licensing proposal at issue.) The district court then discussed the legislative history of section 271(d)(5) as follows:

> [Section] 271(d)(5) specifically notes that patent misuse tying analysis is to be considered "in view of the circumstances," strongly suggesting that rule-of-reason analysis — not *per se* analysis — applies. According to the Supreme Court, when conducting a rule-of-reason analysis, "the factfinder weighs *all of the circumstances of a case* in deciding whether a restrictive practice should be prohibited as imposing an unreasonable restraint on competition." *Continental T.V. v. GTE Sylvania*, 433 U.S. 36, 49, 97 S.Ct. 2549, 2557, 53 L.Ed.2d 568 (1977) (emphasis added); *accord National Soc'y of Professional Engineers v. United States*, 435 U.S. 679, 690, 98 S.Ct. 1355, 55 L.Ed.2d 637 (1978).

49 F.Supp.2d 893 at 910-11. The district court quoted from remarks by Rep. Kastenmeier and Senators DeConcini and Leahy, including their discussions of the phrase "in view of the circumstances." 49 F.Supp.2d at 911-12. It found that the remarks expressed an intent to eliminate *per se* rules due to tying, and that "[n]o contrary statement appears in the legislative history of Section 271(d)(5)." 49 F.Supp.2d at 912.

The Federal Circuit recently stated in *International Business Machines Corp. v. United States*, 201 F.3d 1367 (Fed. Cir. 2000), that statutory interpretation "begin[s] with the language of the statute itself. If that language is clear and unambiguous, then it controls, and we need not — indeed we may not — go further." 201 F.3d at 1372 (2000). In deciding whether the language is clear and unambiguous, a court looks to "the language itself, the specific context in which that language is used, and the broader context of the statute as a whole." *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997).

Section 271(d)(5) states that "[n]o patent owner otherwise entitled to relief for infringement . . . of a patent shall be . . . deemed guilty of misuse . . . by reason of his having . . . conditioned the license of any rights to the patent . . . on the acquisition of a license to rights in another patent or purchase of a separate product, unless, *in view of the circumstances*, the patent owner has market power in the relevant market for the patent . . . on which the license . . . is conditioned." 35 U.S.C. § 271(d)(5) (emphasis added). The Federal Circuit has stated that undefined terms

in a statute are deemed to "have their ordinary meaning, for which [one] may consult a dictionary." *IBM*, 201 F.3d at 1372. *The American College Dictionary* defines "in view of" as "in consideration of."[6] The same dictionary defines "circumstance" as "a condition, with respect to time, place, manner, agent, etc., which accompanies, determines, or modifies a fact or event." *Id.* at 219; *accord Black's Law Dictionary* 243 (6th ed. 1990) ("Circumstances. Attendant or accompanying facts, events or conditions. Subordinate or accessory facts; *e.g.* evidence that indicates the probability or improbability of an event"). Thus, in the context of section 271(d)(5), the phrase "in view of the circumstances" means "in consideration of the accompanying facts or conditions that determine whether" "the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned."[7] Because the language of section 271(d)(5) is not ambiguous and the statutory scheme is coherent *(see Virginia Panel,* 133 F.3d at 869), we decline to follow *Texas Instruments Inc. v. Hyundai Electronics Industries Co.*, 49 F. Supp.2d 893, 912 (E.D. Tex. 1999)) (relying on legislative history to adopt an interpretation of section 271(d)(5) that is contrary to its plain

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[6] *The American College Dictionary* 1356 (Random House 1970) ("view . . . 17. in view of, a. in sight of. b. in prospect or anticipation of. c. in consideration of. d. on account of").

[7] As respondents note, where the intent of a statute is to overrule prior common law, that statutory purpose must be clear. *United States v. Texas*, 507 U.S. 529, 534 (1993). Such is not the case here.

meaning).[8] We are guided instead by the Federal Circuit's analysis of patent misuse, as articulated in *Virginia Panel,* 133 F.3d at 869, 871.

B. Applicability of *Per Se* Analysis to Package Licensing and Pooling Arrangements

Relying on *Standard Oil Co. v. United States,* 283 U.S. 163, 171, 174, 175 (1931), and *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.,* 441 U.S. 1, 24-25 (1979), complainant also argues that a *per se* analysis is inapplicable because the Supreme Court has instead used a rule of reason analysis in evaluating patent pools and package licenses. In *Standard Oil,* the Supreme Court recognized that the cross-licensing and division of royalties from blocking patents could be procompetitive. 283 U.S. at 171. The Court also "examine[d] the evidence to ascertain the operation and effect" (283 U.S. at 175) of certain agreements for cross-licensing and division of royalties between patentees of "competing patented processes" (283 U.S. at 175, 180-81). However, *Standard Oil* did not discuss any tying allegations. Although complainant asserts that *Standard Oil* involved "a license that offered a package of patents and did not permit licensees to select which patents they preferred" (complainant's submission at 45 (citing *Standard Oil,* 283 U.S. at 174)), its citation does not support that

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[8] We also do not rely on the ALJ's discussion of the legislative history of section 271(d)(5) set forth in the ID at 150.

statement. *See also Standard Oil,* 283 U.S. at 170 ("There is no provision in any of the agreements which restricts the freedom of the primary defendants individually to issue licenses under their own patents alone or under the patents of all the others; and no contract between any of them, and no license agreement with a [manufacturer of the product] executed pursuant thereto, now imposes any restriction upon the quantity of gasoline to be produced, or upon the price, terms, or conditions of sale, or upon the territory in which sales may be made. The only restraint thus charged is that necessarily arising out of the making and effect of the provisions for cross-licensing and for division of royalties.") Thus, *Standard Oil* does not preclude a *per se* analysis for tying arrangements.

The Supreme Court opinion in *Broadcast Music* also did not involve allegations of tying. Although the licensee (CBS) argued below that the blanket license at issue was an illegal tying arrangement, the district court rejected the tie-in argument because "direct negotiation with individual copyright owners is available and feasible." *Broadcast Music,* 441 U.S. at 6 (citing 400 F.Supp. 737, 781-83 (S.D.N.Y. 1975)). The Second Circuit affirmed the rejection of the tying argument. 562 F.2d 130, 135 (2d Cir. 1977). CBS did not petition for a writ of *certiorari* on that issue. *Broadcast Music,* 441 U.S. at 6-7, 25 n.43.

Complainant asserts that "the Federal Circuit has prohibited application of the *per se* misuse doctrine unless the practice at issue has been held to

be *per se* illegal by the [Supreme] Court."[9] However, the Supreme Court has recognized that tying arrangements may be anticompetitive *per se*. *Jefferson Parish Hospital Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984); *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 491 (1942); *see also Mallinckrodt v. Medipart Inc.*, 976 F.2d 700, 706, 708 (Fed. Cir. 1992) (holding that district court contravened *Windsurfing* precedent, but stating that "this is not a price-fixing or tying case, and the *per se* antitrust and misuse violations found in *[Bauer & Cie v. O'Donnell*, 229 U.S. 1 (1913); *Straus v. Victor Talking Machine Co.*, 243 U.S. 490 (1917); *Boston Store of Chicago v. American Graphophone Co.*, 246 U.S. 8 (1918)] and *Motion Picture Patents Co. [v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917)] are not here present"). We recognize that the particular facts in the patent misuse cases involve a tying patent and a tied *product*, rather than a tying patent and a tied *patent*. However, finding patent misuse based on a tying arrangement between patents in a mandatory package license is a reasonable application of Supreme Court precedent.

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[9] Complainant's submission at 47 (relying on *Windsurfing International, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986) ("[t]o sustain a misuse defense involving a licensing arrangement not held to have been per se anticompetitive by the Supreme Court, a factual determination must reveal that the overall effect of the license tends to restrain competition unlawfully in an appropriately defined relevant market" (footnote omitted)).

More than thirty years before *Broadcast Music*, the Supreme Court held that the "block booking"[10] of copyrighted films was illegal *per se*. Thus, the Supreme Court has held the practice of mandatory package licensing of intellectual property illegal *per se*. The Court stated that "[w]e do not suggest that films may not be sold in blocks or groups, when there is no requirement, express or implied, for the purchase of more than one film. All we hold to be illegal is a refusal to license one or more copyrights unless another copyright is accepted." *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 159 (1948). In *Broadcast Music*, in contrast, "[t]he [d]istrict [c]ourt found that there was no legal, practical, or conspiratorial impediment to [the licensee's] obtaining individual licenses; [the licensee], in short, had a real choice." 441 U.S. at 24.

The IA and complainant urge the Commission to follow the lead of the DOJ Antitrust Division and use the rule of reason approach to evaluating package licenses that involve patent tying arrangements. The *Antitrust Guidelines for the Licensing of Intellectual Property* state that [p]ackage licensing — the licensing of multiple items of intellectual property in a single license or in a group of related licenses — may be a form of tying arrangement if the licensing of one product is

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[10] Block-booking is the practice of licensing, or offering for license, one feature [film] or group of features on condition that the exhibitor will also license another feature or group of features released by the distributors during a given period." *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 156 (1948).

conditioned upon the acceptance of a license of another, separate product." U.S. Dep't of Justice & FTC, *Antitrust Guidelines for the Licensing of Intellectual Property* § 5.3 (1995) ("DOJ/FTC Antitrust Guidelines"). The DOJ/FTC Antitrust Guidelines state that "[i]f a package license constitutes a tying arrangement, the [DOJ and FTC] will evaluate its competitive effects under the same principles they apply to other tying arrangements." DOJ/FTC Antitrust Guidelines § 5.3. The DOJ/FTC Antitrust Guidelines also state that the DOJ will apply the rule of reason standard in deciding whether to challenge a tying arrangement:

> *In the exercise of their prosecutorial discretion,* the Agencies will consider both the anticompetitive effects and the efficiencies attributable to a tie-in. The Agencies would be likely to challenge a tying arrangement if: (1) the seller has market power in the tying product, (2) the arrangement has an adverse effect on competition in the relevant market for the tied product, and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects. The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner.

DOJ/FTC Antitrust Guidelines § 5.3 (footnotes omitted) (emphasis added). Given the DOJ's acknowledgment that its standard is a matter of prosecutorial discretion, the DOJ's choice of the rule

of reason standard for its antitrust investigations provides little guidance on the standard that we should apply in this investigation; however, it indicates that a *per se* approach is valid.

Complainant argues that "it would be poor public policy to adopt a *per se* approach that condemns all package licenses if market power is found." Complainant's submission at 47. It asserts that a mandatory package license of all patents in a pool may have no anticompetitive effects at all, while offering the well-recognized benefits of reduced transaction costs and reduced uncertainty concerning the rights needed to manufacture a product. Complainant is correct that a *per se* approach condemning *all* mandatory patent license packages is unwarranted because licensing blocking patents as a package is pro-competitive. The application of the *per se* patent misuse doctrine to tying arrangements in a mandatory package license would not, however, encompass blocking patent complexes so long as the traditional separate product requirement, discussed in part C, *infra*, is retained. *International Manufacturing Co. v. Landon*, 336 F.2d 723 (9th Cir. 1964).

The IA opposes even such a narrowly crafted *per se* rule. He suggests that, in the hypothetical situation "where 20 patentees, some of which refuse to license their blocking patents separately, have properly pooled into a mandatory package license 200 essential patents but have errantly included a single nonessential patent along with the essential ones," it would be improper to find patent misuse *per se* because "the anticompetitive effects of wrongly

adding the one nonessential patent to the pool may be outweighed by the procompetitive effects of the arrangement, *e.g.*, reducing the transaction costs that would result if a licensee had to negotiate contracts with each licensee and avoiding a 'hold-out' situation where certain patent holders refuse to license their patents alone." IA's submission at 15-16. We do not find the IA's hypothetical persuasive, however, because it is not necessary to eliminate the package license in his hypothetical altogether in order to avoid patent misuse. All that is necessary is to provide potential licensees with a backstop — the choice of individually licensing the patents; there is nothing wrong with offering the package license as an option, rather than as a requirement.[11]

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[11] Complainant cites no authority for the proposition that tying is "inherent" in a pool license (Complainant's submission at 47). The DOJ Antitrust Division MPEG-2 business review letter states that —

> [a]lthough it offers the Portfolio patents *[viz.*, the patents identified as essential to compliance with the video and/or systems parts of the MPEG-2 standard] only as a package, the Portfolio license does not appear to be an illegal tying agreement. The conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from technological alternatives to the second. In this instance, however, the essentiality of the patents — determined by the independent expert — means that there is no technological alternative to any of them and that the Portfolio license will not require licensees to accept or use any patent that is merely one way of implementing the MPEG-2 standard, to the detriment of competition. *Moreover, although a licensee cannot obtain fewer than*

Relying on *Jefferson Parish*, complainant urges us to examine the competitive consequences of the challenged conduct. The character of the potential harm flowing from including, in a mandatory package license of blocking patents, an extra patent license that is not necessary to use the blocking patents is widely recognized, *viz.*, the suppression of emerging technologies that compete with the technology covered by the extra patent license. CX-358 at 10; CX-357 at 9; CX-355 at 11. As the Supreme Court noted in *Jefferson Parish:*

> There is general agreement in the cases and among commentators that the fundamental restraint against which the tying proscription is meant to guard is the use of power over one product to attain power over another, or otherwise to distort freedom of trade and competition in the second product. This distortion injures the buyers of the second product, who because of their preference for the seller's brand of the first are artificially forced to make a

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all the Portfolio patents from MPEG LA, the Portfolio license informs potential licensees that licenses on all the Portfolio patents are available individually from their owners or assignees. While the independent expert mechanism should ensure that the Portfolio will never contain any unnecessary patents, the independent availability of each Portfolio patent is a valuable failsafe.

CX-355 at 11 (emphasis added).

> less than optimal choice in the second. And even if the customer is indifferent among brands of the second product and therefore loses nothing by agreeing to use the seller's brand of the second in order to get his brand of the first, such tying agreements may work significant restraints on competition in the tied product.

Jefferson Parish, n.19 (quoting *Fortner Enterprises v. United States Steel Corp.*, 394 U.S. 495, 512-514 (1969) (dissenting opinion)). The inclusion of the extra, unneeded patent in the package with the blocking patents could foreclose competing technologies from use by manufacturers licensed under the package; because the manufacturers would obtain the unneeded patent with the package they might choose not to license any of the competing technologies. CX-358 at 10; CX-357 at 9; CX-355 at 11.[12]

Thus, for the reasons discussed above, we conclude that patent misuse *per se* may be based on a tying arrangement between two patent licenses.

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[12] 'The principal objective of the U.S. patent system is the promotion of the progress of science and the useful arts. *U.S. Const.* art. I, § 8; *U.S. v. Masonite Corp.*, 316 U.S. 265, 278 (1942). The suppression of emerging technology is directly contrary to that purpose.

C. Legal Standard for Demonstrating Patent Misuse *Per Se* Based on a Tying Arrangement Between Patent Licenses

As discussed *supra*, we have concluded that patent misuse *per se* may be based on a tying arrangement between two patent licenses. In *Senza-Gel Corp. v. Seiffhart*, 803 F.2d 661 (Fed. Cir. 1986), the Federal Circuit affirmed a grant of summary judgment on a defense of patent misuse *per se* premised on a patent-product tying arrangement. (*Senza-Gel* pre-dates enactment of section 271(d)(5).) In finding patent misuse, the *Senza-Gel* district court employed a three-step analysis, *viz.*, (1) whether two separable items are tied, (2) whether the tied item is a staple in commerce, and (3) whether the two items are tied in fact. The district court certified as a question for interlocutory appeal whether its three step analysis was proper for analyzing a patent misuse claim in the tying context. The Federal Circuit found "no impropriety in the district court's employment of the three-step analysis," although the Federal Circuit "caution[ed] that [it was] not ... explicating all of the analytical parameters that may be applicable to patent misuse questions in future cases." 803 F.2d at 665. Complainant argues that, in addition to the market power requirement imposed by section 271(d)(5), to establish a tying arrangement in the patent misuse context, a proponent must also establish each of the three *Senza-Gel* elements.

Respondents assert that "[a] tying arrangement in patent licensing constitutes *per se* patent misuse where (1) the patentee has market power in a market for licensing certain essential

patents (which the licensee may want to license), and (2) conditions the licensing of those patents on the acceptance of a license to other nonessential patents (which the licensee may not want to license)." Respondents' submission at 9. Respondents contend that not all mandatory package licenses are unlawful tying arrangements that would be subject to the *per se* rule. Relying on *Jefferson Parish*, respondents assert that "[t]ying only arises where the parties include in the pool *both* an item in which they legitimately have market power (*e.g.*, essential patents), and an item for which competition on the merits would otherwise occur (*e.g.*, nonessential patents), and refuse to offer a legitimate choice of obtaining each item separately." Respondents' reply at 25-26, 29 ("if only essential patents are 'tied' together in a single package, then the arrangement does not implicate the *per se* rule"). Respondents assert that because "'[n]onessential' patents by definition are not necessary to practice the Orange Book standard" "there could be competition among nonessential technologies." Respondents' reply at 5. Citing *Jefferson Parish*, they assert that the *per se* prohibition against tying protects competition by ensuring that it not be suppressed by leveraging the market power in the essential patents by tying the essential to nonessential patents.

We agree that establishing patent misuse *per se* based on a tying arrangement between patent licenses requires establishing both market power pursuant to section 271(d)(5) and conditioning (*i.e.*, the patent licenses are tied in fact). We disagree with respondents' position that the antitrust market demand standard should be used to determine

whether the "tying" and "tied" patents are separate items. The Federal Circuit stated in *Senza-Gel* that "[t]he law of patent misuse in licensing need not look to consumer demand (which may be non-existent) but need look only to the nature of the claimed invention as the basis for determining whether a product is a necessary concomitant of the invention or an entirely separate product. The law of antitrust violation, tailored for situations that may or may not involve a patent, looks to a consumer demand test for determining product separability." 803 F.2d at 670 n.14.

We conclude that the second prong of the three-prong *Senza-Gel* analysis, *viz.*, whether the tied product is a staple in commerce, is inapplicable to tying arrangements between two patent licenses. In approving the three-prong standard applied by the district court to the patent-product tying arrangement at issue in *Senza-Gel*, the Federal Circuit cited *Dawson Chemical Co. v. Rohm & Haas Co.*, 448 U.S. 176 (1980). *Dawson Chemical* involved a process patent on a method of using the chemical propanil as an herbicide. 448 U.S. 176, 181-82 (1980). Before the Supreme Court, the petitioners did not dispute that their manufacture and sale of propanil with instructions for using it as an herbicide was contributory infringement of the patent under 35 U.S.C. § 271(c), but they raised the defense of patent misuse. 448 U.S. at 185-86. Section 271(c) defines contributory infringement, as follows:

> Whoever offers to sell or sells within the United States or imports into the United States a component of a

> patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and *not a staple article or commodity of commerce suitable for substantial noninfringing use*, shall be liable as a contributory infringer.

35 U.S.C. § 271(c) (emphasis added). It was undisputed that propanil was a nonstaple article, *i.e.*, "one that has no commercial use except in connection with respondent's patented invention." 448 U.S. at 184, 186-87. The conduct at issue was the patentee's practice of licensing its patented method (the tying patent) only to purchasers of propanil (the tied product).[13] 448 U.S. at 186, 214. The question was whether the patentee's activities were not patent misuse because they fell within the safe havens of section 271(d)(1)—(3).[14] The Supreme Court focused on the relationship between 35 U.S.C. § 271(c) and (d), and held that "the provisions of 271(d) effectively confer upon the patentee, as a lawful adjunct of his

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[13] This was accomplished through an implied license. 448 U.S. at 186, 202.

[14] *Dawson* was decided prior to the Patent Misuse Reform Act of 1988, which enacted 35 U.S.C. §§ 271(d)(4), (5).

patent rights, a limited power to exclude others from competition in nonstaple goods." 448 U.S. at 201.

The IA argues that the three-prong test articulated in *Senza-Gel* in reliance on *Dawson* —

> is structured to ensure that a patentee accused of an illegal tie has not engaged in conduct that falls within the safe haven of section 271(d)(1). However, the test is inapplicable here because the tying of two patents can never fall within the safe haven. This follows from the unquestionable fact that a third party under 271(c) — the section that defines the breadth of the safe haven — can never be found liable for contributory infringement for licensing a patent that it owns.

IA's reply at 13. We agree with the IA that the act of licensing a patent does not implicate contributory infringement under section 271(c). Thus, the staple/nonstaple distinction analyzed in *Dawson* would not be applicable to a patent-patent tying analysis, and that prong of the *Senza-Gel* analysis is not applicable here.

International Manufacturing Co. v. Landon, Inc., 336 F.2d 723 (9th Cir. 1964), while not binding precedent, is both on point and persuasive on the issue of applying the traditional separate product test (the first prong of the *Senza-Gel* analysis) in the

context of patent-patent tie-ins.[15] In that case, the Ninth Circuit held that the mandatory package licensing of blocking patents was not patent misuse, distinguishing *American Securit Co. v. Shatterproof Glass Corp.*, 268 F.2d 769 (3d Cir. 1959), on the

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[15] In discussing the first prong of the *Senza-Gel* analysis, *viz.*, "whether [the tied] product is a necessary concomitant of the invention or an entirely separate product" (803 F.2d at 670 n.14), complainant cites an unpublished Federal Circuit opinion (*Ricoh Co. v. Nashua Corp.*, 1999 WL 88969); *Broadcast Music Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 21 (1979); *Texas Instruments, Inc. v. Hyundai Electronics Industries Co.*, 49 F. Supp.2d 893, 913, 915 (E.D. Tex. 1999); and *Milliken Research Corp. v. Dan River, Inc.*, 739 F.2d 587, 594 (Fed. Cir. 1984). *Broadcast Music* is inapposite because, not only is it an antitrust case, it is not even an antitrust *tying* case. The district court opinion in *Texas Instruments* is not binding precedent on the Commission. As discussed in Part A, *supra*, we disagree with the district court's conclusion that the enactment of 35 U.S.C. § 271(d)(5) in the Patent Misuse Reform Act of 1988 eliminated the *per se* approach to patent tie-ins. We also disagree with the district court's conclusion that *Senza-Gel* has "limited, if any, significance after the Patent Misuse Reform Act of 1988." 49 F.Supp.2d at 915. The district court perceived an inconsistency between the language of section 271(d)(5), which refers to "condition[ing] the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a *separate product*," 49 F.Supp.2d at 914 (quoting 35 U.S.C. § 271(d)(5) (emphasis added by district court)), and the reference to "separable or inseparable items" in *Senza-Gel*, 803 F.2d at 664. The district court's reliance on this difference in language is problematic given the statement in *Senza-Gel* that "[t]he law of patent misuse in licensing . . . need look only to the nature of the claimed invention as the basis for determining whether a product is a necessary concomitant of the invention or an *entirely separate product*." 803 F.2d at 670 n.14 (emphasis added).

ground that the patents at issue in that case "could possibly be used independently without infringing one another."[16] 336 F.2d at 729. The Ninth Circuit reasoned that —

> it is not an unlawful tying arrangement for a seller to include several items in a single mandatory package when the items may be reasonably considered to constitute parts of a single distinct product. A license package containing blocking patents may be considered a single distinct product. By definition, blocking patents disclose interdependent parts of the same product. The product ... is no less a single product because its novel aspects are disclosed by two interlocking patents. In such a case, not only is it not unreasonable to treat both patents as constituting a single product, but also licensing them in a package deal appears to be the most practical way of

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[16] The Ninth Circuit went on to state that "[t]he evil of mandatory package licensing in *[Shatterproof Glass]* was that the prospective licensee, in order to obtain a license under one patent, would be compelled to accept licenses under patents that were not necessarily needed. The same evil does not arise in mandatory package licensing of blocking patents. In such a case, the prospective licensee is being compelled to accept no more than he would, in any event, have to obtain in order to make worthwhile a license under any of the patents." 336 F.2d at 729-30.

making them available for public use. . . .

* * *

Appellants argue that mandatory package licensing of blocking patents should not be condoned because it may result in a prospective licensee being compelled to accept an entire license package — thought by its owner to contain only interlocking patents — even though the licensee believes that he can produce a commercially feasible product under only part of the license package.

This argument is premised on a hypothetical set of facts not involved in our case. *If we had a case where the licensee could produce a commercially acceptable product utilizing one patent but not infringing the others in the package, then clearly we would not have a case involving blocking patents. That we do not have such a hypothetical case is confirmed by the fact that appellants have not attempted to show what kind of device could be made under one of the patents in this case without violating the other. It is further confirmed by the fact that the product that the appellants did in fact manufacture infringed both patents.*

336 F.2d at 730-31 (emphasis added) (footnote omitted). The Ninth Circuit noted that there was testimony that "possibly a structure can be made" that would infringe one patent without infringing the other, but found that the testimony "dealt with hypothetical possibilities insofar as physical structure is concerned, and not with any practical use which could be made of the structure." 336 F.2d at 731 n.5.

Thus we conclude that, in addition to the market power requirement imposed by section 271(d)(5), to establish a tying arrangement between patent licenses in the patent misuse context, a proponent must prove the first and third requirements of the *Senza-Gel* analysis, *viz.*, that the "tying" and "tied" patent licenses are "separate" and tied in fact.

D. The Licensing Arrangements Are Patent Misuse *Per Se* as a Tying Arrangement

The "tying" patent licenses are licenses for U.S. patents that are actually essential for the manufacture of CD-R/RWs in accordance with Orange Book standards, and the "tied" patent licenses are licenses for U.S. patents that the licensors have identified as "essential" but that are actually nonessential for the manufacture of CD-R/RWs. For the reasons discussed below, we conclude that each of the patents asserted in this investigation is unenforceable for patent misuse. In section 1, *infra*, we discuss the market power requirement of section 271(d)(5). The first and third prongs of the three-prong *Senza-Gel* test, *viz.*, the

requirements that the "tying" and "tied" patent licenses be tied in fact and separate, are discussed in sections 2 and 3, *infra*.

We conclude that in the Philips-only CD-RW license (*e.g.*, CX-469C; FF 71, 72), licenses to the U.S. patents that are actually essential for the manufacture of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Farla '692 patent (the "tied" patent license), that the market power requirement of section 271(d)(5) is met, and that the Farla '692 patent is "separate" from the tying patents.

We also conclude that in the Philips-only CD-RW license (*e.g.*, CX-469C; FF 71, 72), licenses to the U.S. patents that are actually essential for the manufacture of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Lockhoff '219 patent (the "tied" patent license), that the market power requirement of section 271(d)(5) is met, and that the Lockhoff '219 patent is "separate" from the tying patents. The Philips-only CD-RW license contains a list of so-called essential patents in Exhibit B4, and every option under the license requires the licensee to "choose[]" to license those essential patents. CX-469C art. 1.10. The list of patents in Exhibit B4 includes each of the six asserted patents in this investigation,[17] as well as the Farla '692 patent and the Lockhoff '219 patent. CX-469C, Exhibit B4 at 4, 5.

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[17] Because the essentiality of four of the six patents asserted in this investigation has not been challenged, those four patents

We conclude that in certain Philips-only CD-R licenses (*e.g.*, RX-872C) and in certain joint CD-R licenses (*e.g.*, 1999 Gigastorage CD-WO/MO Disc Agreement (RX-1832, RX-2024C, Trans. at 834), RX-755C), licenses to the U.S. patents that are actually essential for the manufacture of CD-Rs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Farla '692 patent[18] and to a license to the Lockhoff '219 patent (the "tied" patent licenses), that the market power requirement of section 271(d)(5) is met, and that the Farla '692 patent and the Lockhoff '219 patent are each "separate" from the tying patents. The list of so-called essential patents in certain Philips-only CD-R licenses (*e.g.*, RX-872C, PH 098381–82, 098404)

(*viz.*, the '401 patent, the '856 patent, the '825 patent, and the '764 patent) are among the "tying" patents. The parties dispute whether two of the asserted patents (the Kramer '493 and the Kramer '209 patents) are essential. Either the Kramer patents are properly deemed "essential" or they are actually nonessential patents that should not have been included in the list of so-called essential patents. If the former, they are "tying" patents; if the latter, "tied" patents. In either case, the Kramer '493 and '209 patents are part of the tying arrangement, and therefore both patents should be found unenforceable for patent misuse.

[18] The ALJ found that the patents identified by the licensors as so-called "essential" patents have changed over time. *See, e.g.*, FF 104-06. He further found that some licensees are operating under license agreements that include nonessential patents. FF 78. The burden of demonstrating a purge of patent misuse rests on complainant and requires, *inter alia*, that licenses containing improper provisions must have expired, or at least that the improper provisions be removed. ID at 147 (citing cases).

includes each of the six asserted patents in this investigation, as well as the Farla '692 patent and the Lockhoff '219 patent.

We further conclude that in the 1999 Gigastorage joint CD-RW license (RX-903C), licenses to the U.S. patents that are actually essential for the manufacture of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to each of the following "tied" patent licenses: a license to the Ricoh Iwasaki '149 patent; a license to the Sony Yamamoto '719 patent; a license to the Farla '692 patent; and a license to the Lockhoff '219 patent. We also conclude that each of these "tied" patents is "separate" from the tying patents, and that the market power requirement of section 271(d)(5) is met. The list of patents in Exhibit B5 of the license (RX-903C, PH002750–54) also includes each of the six asserted patents in this investigation, as well as each of the "tied" patents listed above.

1. The Market Power Requirement of Section 271(d)(5)

We find that the relevant market for analyzing market power is the United States market for licensing the essential U.S. patents for the manufacture of CD-R/RW discs in compliance with Orange Book standards, and adopt [19] the ALJ's market definition and market power analysis.[20]

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[19] We take no position on the ID's statement that "Philips, Sony, Taiyo Yuden, and Ricoh are horizontal competitors in the patent licensing market" (ID at 173), and also take no position on the statement that "the Philips CD-R and CD-RW patent

pools constitute horizontal agreements among competitors" to control royalty rates (ID at 175).

[20] We disagree with complainant's contention that in excluding recordable/rewritable DVDs from the relevant product market, the ALJ shifted the burden of proof to complainant. Respondents' expert (Bratic) testified that recordable DVDs are not reasonably interchangeable with CD-Rs. Trans. (Bratic) at 1698:20–1701:2. He noted that a recordable DVD would not play in a CD player and that consumers typically paid ten times more for DVD players than for CD players. The ALJ could reasonably reject the conflicting opinion of complainant's expert (McCarthy) that DVDs were interchangeable with CD-R/RWs, and in the ID he explained his reasons for doing so. Thus, the burden of proof on this issue was not shifted to complainant.

Complainant asserts that Bratic was qualified by the ALJ over its objection "on the issue of patent misuse." Complainant's submission at 61 n.38 (quoting Trans. at 1620). The ALJ stated as follows:

> I will accept Mr. Bratic as an expert in licensing practices and economic matters that pertain to licensing, and facts which indicate to him misuse. Now, I don't accept that as binding on me in any way or on the Commission in any way as to what the law is on misuse, but merely the opinion of a person who has had a lot of experience, obviously, in his views on what the market considers to be regular and normal and what appears to be abnormal.

Trans. at 1623:3–11; *see generally* 1620:1–1624:18. Complainant also asserts that "Bratic, an accountant, not an economist, has never before testified or been qualified to testify about relevant market definitions, market power or anticompetitive effects in relevant markets. (Bratic Tr. 1908-09.) For these and other reasons, Mr. Bratic was not qualified to testify on the definition of a relevant market, and it was error for the ALJ to adopt in whole Mr. Bratic's testimony."

Philips has market power in the United States market for licensing essential U.S. patents for the manufacture of CD-R/RWs according to Orange Book standards because, as the ALJ found, there are no close substitutes for CD-R/RWs (ID at 160-64); the relevant market for licensing essential CD-R/RW patents is coextensive with the relevant product market for CD-R/RWs because "manufacturers are constrained to enter into those licenses in order to make such unique products" (ID at 166-67); and licenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs (ID at 173). The ALJ did not, as complainant contends, erroneously presume that because complainant had a patent, it has market power. Identifying the "tying" patent licenses as licenses for U.S. patents that are essential for the manufacture of CD-R/RWs according to Orange Book standards, the ALJ's analysis demonstrates that the market power requirement of section 271(d)(5) is met.

2. Tied in Fact

To find patent misuse *per se* based on a tying arrangement between two patent licenses, in addition to finding that the market power

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Complainant's submission at 61. Bratic testified that he had "testified on relevant markets and market definitions in many patent cases" (Trans. at 1909:13–14), and that he had "also testified on price erosion issues and the effects of anticompetitive behavior as they relate to price erosion in patent infringement matters" (Trans. (Bratic) at 1911:18–20). *See* Trans. (Bratic) at 1908–13;1610–19 (educational background and work experience).

requirement of section 271(d)(5) is met, we must also find that the "tying" and "tied" patent licenses are tied in fact. We find, as did the ALJ that in the Philips-only CD-RW license (*e.g.*, CX-469C; FF 71, 72), licenses to the U.S. patents that are actually essential for the manufacture of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Farla '692 patent and are also tied in fact to a license to the Lockhoff '219 patent (the "tied" patent licenses).

The ALJ found that, for the Philips-only CD-R and CD-RW licenses, the package of so-called "essential" patents had to be taken as a whole and a licensee could not break up the so-called "essential" patents by selecting only certain of the so-called "essential" patents to license individually. FF 69-73. Philips asserts that prospective licensees have been given the option to license patents individually. In support of this argument, Philips relies on the following language, which appears in several CD-RW joint licenses issued in 1999: "WHEREAS, Licensee understands, that Philips is willing to license *any one or more patent rights* for optical disc manufacturing, owned or controlled by Philips, whether within or outside of the CD-RW Standard Specification as defined hereafter and to disclose and make available the requested basic information, all on reasonable terms and conditions." CX-414C at 2 ("CD-RW Disc License Agreement" with [[ ]] (June 16, 1999)) (emphasis added). [21] Because

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[21] *Accord* CX-422C at 2 ("CD-RW Disc License Agreement" with [[ ]] (Dec. 21, 1999)); Philips' complaint

complainant Philips has not identified any Philips-only CD-RW license, or *any* CD-R license (Philips-only or joint) that contains similar language, the cited language does not suggest that prospective licensees under the Philips-only CD-RW license or the CD-R licenses (Philips-only or joint) were given the option of licensing individual patents as opposed to being forced to take all of the so-called essential patents as found by the ALJ. FF 64, 69–72. Thus, in the Philips-only CD-RW license (CX-469C), licenses to the "tying" patents, *viz.*, the U.S. patents that are essential to the manufacture of CD-RWs in accordance with Orange Book standards (and which appear on the list of so-called essential patents in the license) are tied in fact to licenses to patents that appear on the list of so-called essential patents even though those patents are *not* actually essential to the manufacture of CD-RWs (*e.g.*, the Farla '692 patent).

Relying on the ALJ's factual findings, FF 93 and FF 94, complainant contends that prospective licensees have always had the option of choosing to negotiate individual licenses. We disagree with

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appendix N, tab 10 ("CD-RW Disc Agreement" with [[ ]] (Feb. 12, 1999)); CX-420 C at 2 ("CD-RW Disc License Agreement" with Gigastorage Corporation (Oct. 12, 1999)); *see also* CX-412C at 2 ("CD-RW Recorder Agreement" with [[ ]] (Feb. 12, 1999) ("WHEREAS, Licensee understands, that Philips is willing to license *any one or more patent rights* owned or controlled by Philips for optical recording equipment manufacturing, whether within or outside of the CD-RW Standard Specifications as defined hereinafter and to disclose and make available the requested basic information, all on reasonable terms and conditions") (emphasis added).

complainant's interpretation because the supporting deposition testimony cited by the ALJ refers to single-licensor package licenses, rather than to individual licenses. FF 93 and 94 read as follows:

> FF 93: "The current joint CD-R disc license makes clear that 'interested manufacturers may opt to take out individual licenses under the relevant patents of each of Philips, Sony and Taiyo Yuden instead of a combined license.' *See, e.g.,* RX-992C (PH [076996]); CX-451C (p. 2); [Depo. Trans. (Van Dijk) at] 53-54."
>
> FF 94: "The joint CD-RW disc license also makes clear to licensees that Sony, Ricoh, and Philips retain the right to separately license their patents rights related to CD-RW. *See, e.g.,* CX-436C (p.2)."

The Van Dijk deposition transcript cited by the ALJ in support of FF93 discusses [[

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Trans. Depo. (Van Dijk) at 53:12 - 54:25. Although complainant also relies on additional testimony from the same deposition, that testimony lends no support to its contention:

[[

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Trans. Depo. (Van Dijk) at 71:13 - 73:17. In addition to being inconsistent with the deposition testimony of Van Dijk, Philips' interpretation of FF 93 and FF 94 is also inconsistent with the ALJ's statement that "[m]anufacturers in the market for CD-R/RW discs

are unable to negotiate a reasonable royalty rate with Philips for only particular *blocking* patents for the purpose of making CD-R/RWs that comply with Orange Book standards" (ID at 182 n.111) (emphasis in the ID).

We find, based on the above, that licenses to each of the so-called "essential" patents are tied in fact in the Philips-only CD-RW and CD-R patent licenses, in that none of the so-called essential patents could be licensed individually for the manufacture of CD-RWs or CD-Rs apart from the package. We therefore find a tie in fact between the "tying" patent licenses (licenses for U.S. patents that are actually essential for the manufacture of CD-Rs or CD-RWs in accordance with Orange Book standards) and the "tied" patent licenses (licenses for so-called "essential" patents that are actually nonessential to the manufacture of CD-Rs or CD-RWs) in the Philips-only CD-RW and CD-R patent licenses.

With respect to the joint licenses for CD-R and CD-RW technology, we also find, based on the ALJ's findings and analysis, a tie in fact between the "tying" patent licenses (licenses for U.S. patents that are actually essential for the manufacture of CD-Rs or CD-RWs in accordance with Orange Book standards) and the "tied" patent licenses (licenses for so-called "essential" patents that are actually nonessential to the manufacture of CD-Rs and CD-RWs). Prior to 2000, as the ALJ found, the option to license only the essential patents of a single licensor, such as Philips, was not available. ID at 177-78; Trans. (Smith) at 1423-24; FF 166-67, 369-74. The

ALJ further found, however, that even when the Philips-only and other individual licensor packages became available in 2000, licensees continued operating under pooled license agreements that included nonessential patents and that, indeed, 80 percent of CD-R/RW licenses worldwide currently are licensed under the joint licenses, while only 20 percent have a separate Philips-only license. FF 78, 95. The ALJ further found, as explained more fully below, that licensees were discouraged from purchasing the single licensor packages, as opposed to the joint license. Indeed, the ALJ specifically found that Philips offered no evidence that the anticompetitive effects of including many nonessential patents in the lists of essential patents in the CD-R/RW pools had dissipated. FF 602.

In support of its argument that prospective licensees have been given the option to license patents individually, complainant Philips notes that CX-414C ("CD-RW Disc License Agreement" with [[ ]] (June 16, 1999)) provides that "Philips is willing to license any one or more patent rights for optical disc manufacturing, owned or controlled by Philips, whether within or outside of the CD-RW Standard Specification." The record does not support complainant's argument. The quoted language also appears in the 1999 joint CD-RW license to Gigastorage (CX-420C at 2, FF 250). The ALJ heard testimony regarding negotiations concerning the 1999 Gigastorage licenses and found that Gigastorage was told that separate licenses from the licensors would be more expensive than a joint license, that separate licenses could not be converted to a joint license at a later date, and that the royalty

rate was the same regardless of the number of patents used. FF 369–376. He found that manufacturers like Gigastorage were "forced to license technology that they do not want." ID at 194. We also note that the cited language is not present in more recent joint CD-RW license agreements. *See, e.g.*, Philips' complaint confidential appendix N, tabs 1, 7, 16, 17, and 18.[22]

The ALJ found that "[w]hen Gigastorage discussed with Philips entering into the CD-R patent pool license agreement, Gigastorage did not believe it needed a license to every patent in the pool and inquired into obtaining a license to less than all of the patents on Philips' patent list. Gigastorage hoped that by eliminating some patents the royalty rate would be lower. Philips responded that the royalty is the same regardless of the number of patents used." FF 376 (citing Trans. (J. Chen) at 840:15–841:13, 848:4–11, 918:12–919:7. The ALJ also found that "the evidence of record shows that manufacturers know enough about the patents in the pools to realize that they are being forced to license technology that they do not want." ID at 194 (citing Trans. (J. Chen)

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[22] Appendix N is entitled "License Agreements of CD-RW Licensees." Tab 1 is "CD-RW Disc Patent License Agreement" with [[ ]] (June 17, 2000). Tab 7 is "CD-RW Disc Patent License Agreement" with [[ ]] (July 1, 2000). Tab 16 is "CD-RW Disc Patent License Agreement" with [[ ]] (June 16, 2000). Tab 17 is "CD-RW Disc Patent License Agreement" with [[ ]] (June 21, 2000). Tab 18 is "CD-RW Disc Patent License Agreement" with [[ ]] (Sept. 25, 2000).

918:4–920:7); FF 439. The relevant testimony of Mr. Chen of Gigastorage reads as follows:

> Q. You had a copy of the license and the patent list before you entered into the license; is that right, sir?
>
> A: In the --
>
> Q: No, I'm just asking you, you had a copy of the license and the patent list before you entered into the license with Philips?
>
> A: They give us, yes.
>
> Q: And you didn't look at that patent list, did you?
>
> A: Of course, yes. I just explained that. I will explain again. Before we signed the patent license, we have a patent list, because Philips offer us so-called standard joint license agreement to us, so of course, including the patent list. But in the patent list, there are over 100, over 100 patents. So -- and also, there are a lot of irrelevant patents in the list, for example the CD audio, CD-ROM and CD-I, and also the CD-MO patent in the list. Of course, we have a list, and also, we expressed such opinion to Philips Taipei. So I have a phone call with Danny Lin. He's a manager of Philips Taipei who is in charge of patent licensing in Taiwan. I, on the phone, spoke with him regarding this issue,

those patents we don't need, why they need to put in the list. But we got the answer I just explained. We got the answer, *even if you use one patent of the list or two or more, you still need to pay the same royalty rate, the same amount. So I have, before, we signed a joint license agreement.*

Q: Mr. Chen, I want to direct you to tab 2 of your binder, which is a copy of your deposition testimony, and direct your attention to page 158, line 13. Page 158, line 13.

A: Line 13.

Q: You testified at your deposition "I have looked at the patent list, this is an attachment to the agreement, and there are so many numbers that I didn't look at them in detail, and I remember there were over 100." Do you remember that

A: Yeah, that's my answer, right.

JUDGE HARRIS: Yes, he remembers that.

BY MS. AQUINO: So you didn't look at the patents in detail; correct?

A: Yes. I also explained that we have a patent list, but we don't have the patent in very detail, but from the patent list, I remember in the deposition, I also explain to you, it's very easy to take a

> look in the list, there are different category for the patent. So at that time I explained to you they are CD audio, CD-ROM and CD-I and also the CD-MO in the patent list. So it's very obvious we don't need that, but in the detail, we don't have time, we don't have the manpower to go into the detail, and also, that's over 100 patents.

Trans. (J. Chen) at 918:4–920:7 (emphasis added).

Relying upon the italicized portion of the above-quoted testimony, complainant argues that, rather than demonstrating that Gigastorage could not choose the patents it wanted to license, the "testimony demonstrates only that Philips was prepared to license whatever patents Gigastorage wanted, but that the royalty would not change." Complainant's submission on review at 84. The ALJ concluded, however, that the witness understood Philips' response as a rejection of Gigastorage's request to license fewer patents at a lower royalty (*i.e.*, the witness "realize[d] that [he was] being forced to license technology that [he did] not want" (ID at 194)), rather than as expressing a willingness to license individually the patents in the CD-R joint license. The ALJ is in the best position to evaluate trial testimony, and we believe his interpretation is the correct one.[23]

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[23] In support of its argument that it "is willing to negotiate licenses under whatever patent a licensee chooses" (Complainant's submission on review at 81), complainant also

As discussed above, we find, as did the ALJ, that licensees are unable to license individual patents but must take a license to all of the so-called "essential" patents. The availability of single-licensor package licenses would negate a tie in fact in the joint license between so-called essential patents that are owned by different licensors because the licensee has the option of single-licensor packages from each of the different licensors. The ALJ found, however, that Philips-only package licenses did not become available until 2000. ID at 177–78; Trans. (Smith) at 1423–24; FF 166–67,369–74. We affirm his finding

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cites the following hearing testimony of Brian Wieghaus, complainant's general manager of optical licensing in North America:

> Q: What is Philips's policy with respect to offering its patents for use other than in the field of use of a joint licensing program?
>
> A: Essentially, it's negotiable.
>
> Q: What is Philips's policy with respect to offering individual patents for license?
>
> A: Again, it's negotiable.

Trans. at 305. However, the testimony of Wieghaus that precedes the above-quoted excerpt concerns unusual nonstandard optical products in niche fields. Trans. (Wieghaus) at 303–05. Thus, rather than being directed to licensing patents for use in implementing the CD-R/RW standard, the question relates to negotiations for the use of patents in such non-standard fields. The Wieghaus testimony therefore provides no support for complainant's contention that prospective CD-R/RW manufacturer licensees had the option of obtaining licenses to individual patents.

that the option to license only the essential patents of a single licensor under a single-licensor package license, as opposed to licensing every one of the so-called essential patents of every one of the licensors under a joint license, was not available earlier. We therefore find, in the joint licenses negotiated prior to that point in time, a tie in fact between the "tying" patent licenses (licenses for U.S. patents that are actually essential for the manufacture of CD-Rs or CD-RWs in accordance with Orange Book standards) and the "tied" patent licenses (licenses for so-called "essential" patents that are actually nonessential to the manufacture of CD-Rs or CD-RWs) regardless of ownership. In the joint licenses negotiated after that point in time, we find a tie in fact between the "tying" patent licenses (licenses for U.S. patents that are actually essential for the manufacture of CD-Rs or CD-RWs in accordance with Orange Book standards) and the "tied" patent licenses (licenses for so-called "essential" patents that are actually nonessential to the manufacture of CD-Rs or CD-RWs) owned by the same licensor.

3. Separability

As discussed in the previous section, we find that in the Philips-only CD-RW license (*e.g.*, CX-469C; FF 71, 72), licenses to the U.S. patents that are actually essential for the manufacture and sale of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Farla '692 patent (the "tied" patent license). We affirm the ALJ's finding that the Farla '692 patent, which is included in the Philips-only CD-RW patent license as a so-called "essential" patent, is

actually nonessential to the manufacture of CD-RWs (or CD-Rs) according to Orange Book standards.[24]

Complainant asserts that "[t]here is no evidence or finding that any pooled patent is not infringed by the making of an Orange Book disc." Complainant's submission at 78. It notes that —

> [t]he ALJ's conclusion regarding which patents are "essential" and which patents should or should not be pooled together — based . . . on a standard that ignores whether patents are actually infringed -- has no applicability to the law of patent misuse based on tying which examines whether the alleged tied products are separate products by looking at the nature of the invention to determine whether the product is a "necessary concomitant of the invention." *See Senza-Gel*, 803 F.2d at 670 n.14. Whatever may be said of the ALJ's determination of essentiality, it was not based on what patent the

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[24] ID at 201–05. The ALJ found that the Farla '692 patent "was included in the CD-R license agreement for many years before it was removed from the list of essential patents in 2001." ID at 204 (citing RX-840, RX-778, RX-755, RX-914). He also found that "at least as of a license agreement signed in January 2002, the Farla '692 patent was still being listed as an essential patent under the CD-RW license agreement." ID at 204 (citing RX-770 at PH087634). As pointed out by the IA, the following additional CD-RW licenses also include the Farla '692 patent: RX-766 at PH087728, RX-773 at PH088934.

> licensee needs or infringes in making a licensed product.

Complainant's submission at 78 n.52 (citations omitted). We disagree with complainant's contentions, and find that the Farla '692 patent is "separate" from the tying patents.

The ALJ found that "[l]icenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs that are in technical and practical compliance with the Orange Book." ID at 173; FF 222. Contrary to complainant's contentions, the record in this investigation establishes that a licensee could produce an Orange Book compliant CD-R or CD-RW disc (using the so-called "essential" patents that are actually essential) without infringing the Philips Farla '692 patent.[25] The evidence supporting this finding is the testimony of respondents' expert (McLaughlin).[26]

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[25] As discussed in Part C, *supra*, the mandatory package licensing of blocking patents is not patent misuse *per se* because such patents may be considered to be a single product. As the Ninth Circuit stated in *International Manufacturing Co. v. Landon, Inc.*, 336 F.2d 723, 731 (9th Cir. 1964), "where the licensee could produce a commercially acceptable product utilizing one patent but not infringing the others in the package, then clearly we would not have a case involving blocking patents."

[26] Respondents assert that in appendix B of complainant's submission on review, complainant for the first time challenges the opinion of its expert (McLaughlin) as to the essentiality of specific patents, raising arguments that were never presented to the ALJ. Respondents concede, however, that the appendix

Complainant generally asserts that the testimony of respondents' expert (McLaughlin) is not evidence that alternative technologies exist that do not infringe the patents. It notes that McLaughlin testified on cross-examination that he was "not intimately familiar with the term infringement," and asserts that "the ALJ refused to permit [complainant's counsel] to question Dr. McLaughlin on the importance of an infringement analysis in determining essentiality, stating that [the ALJ said that] 'this expert's task was not to consider the question of infringement but to consider the question of essentiality'." Complainant's reply at 29 n.24 (quoting Trans. at 1583). While McLaughlin stated that he was "not intimately familiar with the term 'infringement,'" we do not believe that this means that his testimony is incompetent that certain patents (including, *e.g.*, the Farla '692 patent) do not "cover" Calimetrics' alternative OPC and write strategy technology. [27] This is because in his testimony McLaughlin compared an exemplary claim in the patent at issue and explained why the

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also "discusses factual or legal issues that may have been raised before the ALJ." Respondents' reply at 78. The Commission need not consider arguments raised by complainant in appendix B of its submission on review challenging the patent-by-patent essentiality opinion testimony of respondents' expert that were not raised before the ALJ. *Hazani v. United States Int'l Trade Comm'n*, 126 F.3d 1473, 1476-77 (Fed. Cir. 1997). However, as discussed below, the Commission finds complainant's arguments unpersuasive.

[27] Calimetrics is a company owning alternative technology. *See, e.g., ID* at 203.

technology was not covered. The hearing testimony cited by complainant does not suggest that the ALJ prevented complainant from questioning McLaughlin about his findings concerning those patents on cross-examination.

The ALJ found that the "claims of the Farla '692 patent are directed to a particular method of carrying out a strategy for writing data, otherwise known as a 'write strategy,' onto a blank recordable disc." ID at 201; FF 471–72. He noted that "Dr. McLaughlin testified that at least one economically viable alternative for performing write strategy exists that does not infringe the Farla patent," and that "Dr. McLaughlin identified an OPC and write strategy method available from Calimetrics, Inc., where he is employed as a Principal Scientist, as an alternative that is not covered by the Farla '692 patent and that would comply with the requirements of the Orange Book if it were used." ID at 203; FF 482–485; Trans. (McLaughlin) at 1493:3–8; 1520:16–22; 1527:7–1528:8; 1563:18–1564:23; 1571:3–1571:10.

Complainant asserts that, rather than requiring that respondents prove patent misuse, the ALJ improperly shifted the burden of proof on the issue to it. Complainant contends that the ALJ required it to demonstrate that the Farla '692 patent had been removed from the CD-RW licenses, although the burden of proof should have remained on respondents to demonstrate that the Farla '692 patent was still included in the CD-RW licenses.

In response, respondents assert that "[g]iven that there was undeniable evidence that Farla was listed as essential in the past, the ALJ properly

placed the burden on Philips to show that it no longer was [on the list of essential patents]. (FF 486, 488.) In any event, the fact that a nonessential patent has in the past been on the list is sufficient to support a finding of patent misuse." Respondents' reply at 85 n.46.

The ALJ did not shift the burden of proof on this issue to complainant. The ID states as follows:

> The [Farla '692] patent was included in the CD-R license agreement for many years before it was removed from the list of essential patents in 2001. *Compare* RX-840; RX-778; RX-755; RX-914. However, at least as of a license agreement signed in January 2002, the Farla '692 patent was still being listed as an essential patent under the CD-RW license agreement. *See* RX-770 at PH087634.
>
> It is unclear whether the Farla '692 patent remains listed on Philips' standard license agreements as an essential patent in the CD-RW pool. Philips' website of form license agreements does not include the lists of essential and nonessential patents for the CD-RW disc pool. *See* "Philips Intellectual Property and Standards, CD-R/RW Patents," *at* http://www.licensing. philips.com/ licensees/patent/ob/ (CD-R/RW hyperlink) (last visited on August 26, 2003). In the absence of evidence to the

> contrary, it can only be assumed that the Farla '692 patent continues to be listed as an essential patent on the form CD-RW license as well as on the agreements of all existing CD-RW licenses. As such, it unreasonably forecloses competition from alternative technologies that also comply with the Orange Book.

ID at 204-05 (emphasis added). Thus, the basis for the ALJ's conclusion that the Farla '692 patent continues to be listed as an essential patent in CD-RW licenses is that, although the patent had been removed in 2001 from the list of essential *CD-R patents*, the patent was still listed as an essential patent in a 2002 *CD-RW* patent license (RX-770 at PH087634 (Jan. 1, 2002)). The ALJ could permissibly infer from this evidence that the Farla '692 continues to be listed as an essential CD-RW patent. No party has directed us to evidence in the record that the patent has been removed from the list of essential CD-RW patents. We conclude that complainant's arguments concerning the Farla patent are without merit.

As discussed above, the record in this investigation establishes that a licensee could produce an Orange Book compliant CD-RW disc without infringing the Philips Farla '692 patent. Thus, the Farla '692 patent is not in a blocking relationship with the U.S. patents that are actually essential for the manufacture of CD-RWs, and we find that the Farla '692 patent is separate from those patents.

As discussed in the previous section, we also find that in certain joint CD-R and CD-RW licenses there is a tie in fact between the "tying" patent licenses (licenses for U.S. patents that are actually essential for the manufacture of CD-Rs or CD-RWs in accordance with Orange Book standards) and the "tied" patent licenses (licenses for so-called "essential" patents that are actually nonessential to the manufacture of CD-Rs or CD-RWs) regardless of ownership. For the reasons discussed below, we affirm the ALJ's findings that the Ricoh Iwasaki '149 patent and the Sony Yamamoto '719 patent, which are included in certain joint licenses, are actually nonessential to the manufacture of CD-RWs (or CD-Rs) according to Orange Book standards, and find that they are separate from the essential patents in the joint licenses.

The ALJ found that "[l]icenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs that are in technical and practical compliance with the Orange Book." ID at 173. As discussed below, the record in this investigation establishes that a licensee could produce an Orange Book compliant CD-RW disc using the so-called "essential" patents that are actually essential, without infringing either the Ricoh Iwasaki '149 patent or the Sony Yamamoto '719 patent.[28] Thus, none of these patents is part of

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[28] We do not decide whether the Spruit '351 patent, the Hamada '388 or '009 patents, the Lagadec '565 patent, the Ogawa '994 patent, the Kramer '493 or '209 patents, or the Mimnagh `462 patent are "separate" from the tying patents.

the complex of blocking patents that are required for the manufacture of Orange Book compliant CD-R or CD-RW discs, and we conclude that each of these patents is "separate" from the "tying" patents.[29]

The Iwasaki '149 Patent

The ALJ found that the "claims of the Iwasaki '149 patent are directed to a particular method of performing the OPC procedure, which is setting laser power to an appropriate level to record onto a particular disc." ID at 205; Trans. (McLaughlin) at 1516:24–1518:7; 1520:24–1521:11. He also found that "at least one economically viable alternative for performing OPC exists that does not infringe the Iwasaki '149 patent," and that "[t]he OPC and write strategy method available from Calimetrics, Inc. was identified by Dr. McLaughlin as an alternative that is not covered by the Iwasaki patent and would comply with the requirements of the Orange Book if it were used." ID at 205–06; 1517:2–20; 1521:12–1522:13; 1563:18–1564:23; 1571:3–10.

Complainant states that the Ricoh Iwasaki '149 patent is not listed as a patent in the CD-R patent pool and that Ricoh is not a CD-R pool licensor.

The ALJ found the Ricoh Iwasaki '149 patent to be nonessential, reasoning as follows:

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[29] General challenges to the testimony of respondents' expert (McLaughlin) raised by complainant are discussed *supra* in connection with our discussion of the Farla '692 patent.

Respondents contend, without contest by Complainant, that the Ricoh Iwasaki '149 patent is nonessential and should not be included as such in the Philips CD-R and CD-RW patent pools. RPHB at 13-15. The claims of the Iwasaki '149 patent are directed to a particular method of performing the OPC procedure, which is setting laser power to an appropriate level to record onto a particular disc. McLaughlin Tr. 1516:24-1518:7; RX-52 (Iwasaki '149 patent). The OPC method defined by the Iwasaki patent consists of calculating a standardized gradation factor by monitoring the amplitudes of signals from test data patterns. McLaughlin Tr. 1520:23-1421:11; RX-52 (Iwasaki '149 Patent).

Respondents assert that the Iwasaki '149 patent is not essential to practice the Orange Book for at least two reasons. First, the Orange Book does not mandate a particular method for carrying out the OPC function. McLaughlin Tr. 1507:10-1509:17; RX-407C (Orange Book CD-R Standard at PH015759); RX-408C (Orange Book CD-RW Standard at PH023331-023332). Philips's employee and technical witness, Hans Mons, testified that some of the characteristics the Orange Book defines for CD-Rs and CD-RWs are not mandatory, and that Orange Book-

compliant CD-Rs and CD-RWs do not need to conform to the non-mandatory characteristics defined by the Orange Book. Mons Tr. 453:18-454:2; McLaughlin Tr. 1504:10-18.

Second, as stated earlier in connection with the Farla '692 patent, the Iwasaki '149 patent is not essential as a practical matter because at least one economically viable alternative for performing OPC exists that does not infringe the Iwasaki '149 patent. McLaughlin Tr. 1563:1-12. The OPC and write strategy method available from Calimetrics, Inc. was identified by Dr. McLaughlin as an alternative that is not covered by the Iwasaki patent and would comply with the requirements of the Orange Book if it were used. McLaughlin Tr. 1521:12-1522:13; 1523:5-13.

Finally, Respondents contend that the Calimetrics method is not covered by the Iwasaki '149 patent. McLaughlin Tr. 1521:12-18. The Iwasaki patent requires the calculation of a certain mathematical quantity, and the calculation of that mathematical quantity does not occur during the Calimetrics OPC procedure. McLaughlin Tr. 1521:19-1522:13.

Dr. Rubenstein has not rendered any opinion as to the essentiality of the

> Iwasaki '149 patent. Rubenstein Tr. 2263:11-2264:12. Neither has Complainant offered any expert testimony to counter the evidence presented by Dr. McLaughlin on the patent's nonessentiality. Thus, the evidence of record demonstrates that the Iwasaki '149 patent is nonessential to the practice of the Orange Book, and its inclusion among the list of "essential" patents in the pools unreasonably forecloses competition.

ID at 205-06. To the extent that the ALJ found the Iwasaki '149 patent to be "nonessential" to practice the CD-R technology, we modify the ALJ's findings of fact to reflect that the record indicates that the patent concerns only CD-RW technology. Trans. (McLaughlin) at 1500–01; RX-2381.

In his ID the ALJ specifically relied on the fact that complainant did not challenge the testimony of respondents' expert (McLaughlin) concerning the Iwasaki '149 patent. Nonetheless, in its submission on review, complainant now asserts that the OPC procedure in attachment C3 of Part III of the Orange Book is mandatory because certain parameters must be included in the ATIP. It contends that the OPC procedure in attachment C3 is mandatory because these parameters are determined according to that OPC procedure. Complainant's argument is not persuasive, however, because there is testimony in the record that, although attachment C3 "gives an example of an OPC-like procedure" in section 3.3 (CX-162C at PH023332), the title of the section, "A

procedure for the determination of the OPC parameters for media," indicates that "there's more than one way to do that." Trans. (McLaughlin) at 1509:3–17. We conclude that the ALJ's findings of fact are not clearly erroneous.

The Yamamoto '719 Patent

The ALJ found that the "claims of the Yamamoto '719 patent contain functional limitations for creating a master disc. [Trans. (McLaughlin) at] 1534:14–25; RX-50. The limitations define a method of using a single laser beam to create a master containing both a wobbled pre-groove and pre-recorded data." ID at 206. He further found that "[a]t least one economically viable alternative for creating a master exists that does not infringe the Yamamoto patent. [Trans. (McLaughlin) at] 1535:7–15. According to Dr. McLaughlin, the Calimetrics two-beam mastering method is a commercially viable alternative to the patent. [Trans. (McLaughlin) at] 1568:3–15;1570:1–9." ID at 207.

Complainant contends that the ALJ's reasoning is erroneous because it depends on McLaughlin's erroneous construction of the claims of the Yamamoto patent. According to complainant, the claims are not limited to producing a master disc with a single laser beam. It asserts that because, for example, claim 7 uses the transition term "comprising," "infringement of this claim requires *at least one recording beam*, but it is plainly not limited to exclude methods using more than one beam." Complainant's submission app. B at 41 (emphasis in original). Complainant further argues that McLaughlin did not testify that Calimetrics

developed a two-beam mastering technique, but merely speculated about possible alternatives to the Yamamoto patent.

We do not find complainant's argument that the scope of the claims of the Yamamoto patent is not restricted to a single recording beam persuasive. The "Background of the Invention" section of the Yamamoto patent specification states that "[h]itherto, in the case of forming patterns of different widths onto a mother disc, the pits 31, groove 32, and recording spots corresponding to their widths are prepared and both of these recording spots are switched." RX-50, col. 1,ll.23–27. The specification goes on to identify as a "problem" the fact that "since it is necessary to form two beams, the laser power must . . . be set to a large value." RX-50, col. 1,ll. 37–38. The "Summary and Object of the Invention" section of the patent specification specifically states that "an object of the present invention [is] to provide an optical recording apparatus in which both the pits and a wide groove can be formed by *using only one recording spot* and the foregoing drawbacks are eliminated." RX-50, col. 1,ll.46–50 (emphasis added). The specification goes on to state that "[b]oth of the pits and the wide groove are formed by *using the single recording beam as explained above. Thus, the foregoing problem which . . . occurs when two beams are switched and used can be avoided.*" RX-50, col. 2,ll. 7–11 (emphasis added). *See also* RX-50, col. 4,ll. 38–43, 46–48. Thus, the specification identifies a problem and clearly states that the use of a single recording beam in the present invention avoids the problem.

The ALJ stated that McLaughlin referred to the two-beam mastering method that is a commercially viable alternative to the Yamamoto patent as "Calimetrics two-beam mastering method." ID at 207 (citing Trans. (McLaughlin) at 1568:3–15, 1570:1–9). We agree with complainant that the supporting testimony (*see also* 1568:16–20 and 1571:3–10) does not identify the two-beam mastering method as a Calimetrics method. McLaughlin did testify, however, that the two-beam method is a commercially viable alternative to the Yamamoto patent. We conclude that complainant's argument regarding the scope of the Yamamoto patent claims and its argument that the two-beam alternative to the Yamamoto patent is speculative are without merit.

The Lockhoff '219 Patent

As stated above, we find that in certain Philips-only CD-R licenses (*e.g.*, RX-872C), licenses to the U.S. patents that are actually essential for the manufacture of CD-Rs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Lockhoff '219 patent and to a license to the Farla '692 patent (the "tied" patent licenses). As also discussed in the previous section, we find that in the Philips-only CD-RW licenses (*e.g.*, CX-469C; FF 71, 72), licenses to the U.S. patents that are actually essential for the manufacture of CD-RWs in accordance with Orange Book standards (the "tying" patent licenses) are tied in fact to a license to the Lockhoff '219 patent. For the reasons discussed below, we affirm the ALJ's finding that the Lockhoff '219 patent is actually nonessential to the

manufacture of CD-Rs or CD-RWs according to Orange Book standards, and find that it is separate from the essential patents.

The Lockhoff '219 patent is directed to a method of copy control (FF 553). Complainant contends that because the Lockhoff '219 patent is "technically essential" to practice the Orange Book standard, the fact that an alternative technology exists to the Lockhoff '219 patent is irrelevant for purposes of an "essentiality" analysis — because a "technically essential" patent reads on the Orange Book. The ALJ found the evidence in conflict, however, and relied on the hearing testimony of respondents' expert McLaughlin. ID at 213.

The ALJ stated that Rubenstein found the Lockhoff '219 patent to be technically essential (ID at 212). The ALJ took specific note of RX-126C (May 14, 2002 Rubenstein Status Report) at PH065726), which is the relevant evidence complainant identifies on this point.[30] The ALJ found that alternative methods existed "such as embedding the copy control in the content" and that [e]mbedding copy control in the content would satisfy the Orange Book but would

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[30] Complainant's references to CX-163C at PH015771 (B12.1 – 12.3 of attachment B12 of part II of the Orange Book (CD-R)) and CX-162C at PH023341 (C9.1 – 9.3 of attachment C9 of part III of the Orange Book (CD-RW)) are inconsistent with the cited portion of Rubenstein's status report (RX-126C at PH065726), which identifies attachments B1 and C1.1 as relevant to the Lockhoff '219 patent and which also identifies attachments B 12-1, B 12-2, C9-1, and C9-2 as relevant to U.S. Patent No. 5,428,598.

not be covered by the Lockhoff '219 patent." FF 556, 557 (citing Trans. (McLaughlin) at 1529:14–1531:21). Thus, we affirm the ALJ's findings of fact, and find that the Lockhoff '219 patent is separate from the essential patents.

4. Conclusion

For the reasons discussed above, we conclude that the patents asserted in this investigation are unenforceable for patent misuse *per se*.

II. Analysis of Patent Misuse Under the "Rule of Reason" Standard

The ALJ also found patent misuse under the rule of reason standard. ID at 152–53, 182–83,219–20. He found that complainant's CD-R/RW patent license agreements included as so-called "essential" patents for manufacturing CD-R/RW discs according to the Orange Book standard certain patents that were actually nonessential. ID at 185–213. He concluded that this practice constituted an extension of complainant's statutory right to exclude under its patents. ID at 183–85. He also found that such inclusion of nonessential patents in the license agreements had the anticompetitive effect of foreclosing competition in alternative technology that competes with the technology covered by a nonessential patent that was included as a so-called "essential" patent. ID at 196–213. We adopt this portion of the ALJ's analysis under the rule of reason standard with the modifications discussed below.

As to the ALJ's conclusion that certain patents included as so-called "essential" patents in

complainant's licensing agreements are actually nonessential, we adopt the ALJ's analysis and conclusions with respect to the Farla '692 patent, the Yamamoto '719 patent, the Lockhoff '219 patent, and the Iwasaki '149 patent.[31] We take no position on the ALJ's conclusion that the following patents included as so-called "essential" patents in the licensing agreements are actually nonessential: the Kramer '493 and '209 patents, the Ogawa '994 patent, the Lagadec '565 patent, the Spruit '351 patent, the Mimnagh '462 patent, and the Hamada '388 and '009 patents.

The ALJ also found that the CD-R/RW patent pooling arrangements between complainant and its colicensors constituted horizontal agreements among competitors who controlled the royalty rate for patents in the pools, and concluded that these horizontal restraints rose to the level of patent misuse *per se* as price fixing and price discrimination. We take no position on these conclusions, and also take no position on the ALJ's conclusion that the royalty rate mechanism of the patent pooling arrangements is an unreasonable restraint on competition.[32]

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[31] Arguments raised by complainant in its submissions concerning the ALJ's analysis of the Farla '692 patent, the Lockhoff '219 patent, the Yamamoto '719 patent, and the Iwasaki '149 patent are addressed *supra*.

[32] We adopt those portions of the ALJ's analysis of the royalty rate mechanism under the rule of reason (ID at 213–19) that are relevant to the issue of whether the anticompetitive effects of including nonessential patents in the list of so-called

As explained below, we find patent misuse under the rule of reason standard based on the ALJ's findings that the Philips-only CD-RW license included as a purported essential patent the Farla '692 patent, which is in fact nonessential; that such inclusion had the anticompetitive effect of foreclosing an alternative technology developed by Calimetrics; and that the anticompetitive effects outweigh the procompetitive effects. We also find patent misuse under the rule of reason standard based on the ALJ's findings that certain joint CD-RW licenses (*e.g.*, RX-903C) included as purported essential patents the Philips Farla '692 patent and the Ricoh Iwasaki '149 patent, which are in fact nonessential; that such inclusion had the anticompetitive effect of foreclosing an alternative technology developed by Calimetrics; and that the anticompetitive effects outweigh the procompetitive effects.

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essential patents outweigh the procompetitive effects, *e.g.*, ID at 214–15 (attributing the development of CD-R and CD-RW consumer market to standardization), ID at 215–16 (acknowledging well-recognized procompetitive effects of pools that license technically essential patents, but identifying inherent competitive problems posed by pools that encompass nonessential patents); ID at 217–18 (discussing separate lists of essential and nonessential patents that are under control of Philips and its licensor partners and are not negotiable); ID at 219 ("Efforts on the part of pool members to have their patents included in the pool as 'essential as a practical matter,' even though those patents do not cover anything in the Orange Book, [are] merely an attempt to forestall competing technologies").

A. Legal Standard for Patent Misuse under the Rule of Reason

We adopt the ALJ's articulation of the legal standard for finding patent misuse under the rule of reason. ID at 182-83. Essentially, "[a] rule of reason analysis requires a determination of whether an agreement is on balance an unreasonable restraint of trade, that is, whether its anti-competitive effects outweigh its pro-competitive effects." *Columbia Broad. Sys., Inc. v. Am. Soc'y of Composers, Authors & Publishers*, 620 F.2d 930, 934 (2d Cir. 1980) (citing *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679 (1978); *Cont'l TV., Inc_ v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977); and *Bd. of Trade of Chicago v. United States*, 246 U.S. 231 (1918)).

A rule of reason analysis should be applied in evaluating allegations of patent misuse that do not constitute patent misuse *per se*. *Virginia Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 869 (Fed. Cir. 1997) (referencing the rule of reason standard applied in the antitrust case *State Oil Co. v. Kahn*, 118 S. Ct. 275, 279 (1997)). To the extent that respondents' arguments with respect to the cases of *Berlenbach v. Anderson & Thompson Ski* Co., 329 F.2d 782 (9th Cir. 1964); *Jack Winter, Inc. v. Koratron Co.*, 375 F. Supp. 1 (N.D. Cal. 1970); and *Columbus Auto. Corp. V. Oldberg Mfg. Co.*, 264 F. Supp. 779 (D. Colo. 1967), *aff'd*, 387 F.2d 643 (10th Cir. 1968), are understood as

urging us to adopt a different course, we reject those arguments.[33]

The ALJ found patent misuse because nonessential patents are included in the list of so-called "essential" patents in the licenses at issue, and such inclusion forecloses economically viable alternative technology for making CD-R/RWs that competes with technology covered by the "nonessential" patent. He found the Farla '692 patent to be "nonessential" because respondents' expert (McLaughlin) "testified that at least one economically viable alternative for performing write strategy exists that does not infringe the Farla patent." ID at 203. The ALJ found that McLaughlin identified an economically viable alternative for performing an Optimum Power Control (OPC) and write strategy available from Calimetrics that would comply with the requirements of the Orange Book if it were used and that was not covered by the Farla '692 patent. ID at 203–04; FF 482–485. He also found the Iwasaki '149 patent to be "nonessential" because McLaughlin identified an economically viable alternative for performing OPC available from Calimetrics that is not covered by the Iwasaki patent and would comply with the requirements of the Orange Book if it were used. ID at 205–06.

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[33] *See also* Robert J. Hoerner, "The Decline (and Fall?) Of the Patent Misuse Doctrine in the Federal Circuit," 69 *Antitrust Law Journal* 669 (2002), discussing inconsistency between Federal Circuit cases and those cited by respondents.

In its petition for review, complainant asserts that the *per se* standard of patent misuse in tying cases that was applied in *American Securit Co. v. Shatterproof Glass Corp.* has been legislatively overruled by the 1988 Patent Misuse Reform Act, which it characterizes as imposing (as a threshold requirement) a finding of market power and requiring a "rule of reason" analysis in analyzing patent misuse.[34] Complainant submits that because an inquiry under the "rule of reason" is now required to support a finding of patent misuse in a tying case, *Shatterproof's* holding that mandatory package licensing extends the scope of a patent is no longer good law.[35]

Relying on *International Manufacturing Co. v. Landon, Inc.*, 336 F.2d 723 (9th Cir. 1964), [36]

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[34] We address the question of whether 35 U.S.C. § 271(d)(5) eliminated the *per se* approach to patent tie-ins in section I.A. *supra*.

[35] We reject complainant's contention that *Shatterproof* is "directly contrary" to *Broadcast Music*. As pointed out by the ALJ (ID at 182 n.111), *Broadcast Music* did not involve mandatory package licensing.

[36] Complainant points out that the *Landon* court stated that "it is not an unlawful tying arrangement for a seller to include several items in a single mandatory package when the items may be reasonably considered to constitute parts of a single distinct product," and that "[t]he product . . . is no less a single product because its novel aspects are disclosed by two interlocking patents. In such a case, not only is it not unreasonable to treat both patents as constituting a single product, but also licensing them in a package deal appears to be the most practical way of making them available for public

complainant argues that *Shatterproof* "does not support a determination that Philips has broadened the scope of its CD-R or CD-RW patents by package licensing them." Complainant's petition for review at 40. It contends that the package licenses are intended to "enable a manufacturer" to make CD-R or CD-RW discs, and that the licenses provide manufacturers with the patents "need[ed] to manufacture the product." *Id.* at 40. It asserts that "[b]ecause each of the patents in the package covers aspects of a single product *and each is licensed for the limited purpose of making the product,* the package licensing of the patents does not extend their scope." *Id.* at 40 (emphasis in original). Complainant argues that the benefits of package licensing are recognized in section 5.5 of the DOR/FTC Antitrust Guidelines and in the three Business Review Letters from the DOJ Antitrust Division involving package licensing. Respondents and the IA oppose complainant's position.

A leading treatise indeed characterizes *Landon* as "recogniz[ing] an exception to the *American Securit* rule against mandatory package licensing in the case of blocking patents." Donald S. Chisum, *Chisum on Patents* § 19.04[3][c]. And the DOJ has also recognized in its business review letters that packaging blocking patents can be procompetitive:

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use." Complainant's petition for review at 40–41 (quoting 336 F.2d at 730).

> A starting point for an antitrust analysis of any patent pool is an inquiry into the validity of the patents and their relationship to each other. A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny. [footnote omitted] *And a patent pool that aggregates competitive technologies and sets a single price for them would raise serious competitive concerns. On the other hand, a combination of complementary intellectual property rights, especially ones that block the application for which they are jointly licensed, can be an efficient and procompetitive method of disseminating those rights to would-be users.*

CX-355 (MPEG-2 Business Review Letter) at 9 (emphasis added).

> If the [three] [l]icensors [participating in the pool] owned patent rights that could be licensed and used in competition with each other, they might have an economic incentive to utilize a patent pool to eliminate competition among them. A pool that served that purpose "would raise serious competitive concerns." [footnote omitted] In combining such substitute patents, the pool could serve as a price-fixing mechanism, ultimately raising the price of products and services that utilize the

> pooled patents. *If on the other hand, the pool were to bring together complementary patent rights, it could be "an efficient and procompetitive method of disseminating those rights to would-be users."* [footnote omitted] By reducing what would otherwise be three licensing transactions to one, the pool would reduce transactions costs for [l]icensors and licensees alike. *By ensuring that each [l]icensor's patents will not be blocked by those of the other two, the pool would enhance the value of all three [l]icensors' patents.*

CX-357 (3C DVD Business Review Letter) at 9 (quoting MPEG-2 Business Review Letter (CX-355) at 9) (emphasis added); *accord* CX-358 (6C DVD Business Review Letter) at 9. Under the standard articulated by the *Landon* court,[37] however, neither the Farla '692 patent nor the Iwasaki '149 patent are in a blocking relationship with the other patents included in the pool.[38]

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[37] If we had a case where the licensee could produce a commercially acceptable product utilizing one patent but not infringing the others in the package, then clearly we would not have a case involving blocking patents." 336 F.2d at 731.

[38] The ALJ found that at least one economically viable alternative exists to the Farla '692 patent that would comply with the requirements of the Orange Book and would not infringe the Farla '692 patent if it were used and that at least one economically viable alternative exists to the Iwasaki '149 patent that would comply with the requirements of the Orange

The DOJ business review letters also identify two anticompetitive effects arising from the inclusion in the pool of patents that are substitutes for one another. CX-358 at 10. The 6C DVD business review letter discusses the effects as follows:

> Consider, for example, a situation in which there are several patented methods for placing DVD-ROMs into packaging — each a useful complement to DVD-ROM manufacturing technology, but not essential to the standard. A DVD-ROM maker would need to license only one of them; they would be substitutes for each other. Inclusion in the pool of two or more such patents would risk turning the pool into a price-fixing mechanism. Inclusion in the pool of only one of the competing nonessential patents, which the pool would convey along with the essential patents, could in certain cases unreasonably foreclose the non-included competing patents from use by manufacturers; because the manufacturers would obtain a license to the one patent with the pool, they might choose not to license any of the competing patents, even if they otherwise would regard the competitive patents as superior. Limiting a pool to

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Book and would not infringe the Iwasaki '149 patent if it were used. ID at 203–06.

> essential patents ensures that neither of these concerns will arise; rivalry is foreclosed neither among patents within the pool nor between patents in the pool and patents outside it.

CX-358 (6C DVD Business Review Letter) at 10; *see also* CX-357 (3C DVD Business Review Letter) at 9; CX-355 (MPEG-2 Business Review Letter) at 9–10.

In this investigation, the ALJ found that a viable alternative technology exists *outside the pools* for the technology covered by some of the patents that are included in the pools, that is, at least one economically viable alternative exists to the Farla '692 patent that would comply with the requirements of the Orange Book and would not infringe the Farla '692 patent if it were used and at least one economically viable alternative exists to the Iwasaki '149 patent that would comply with the requirements of the Orange Book and would not infringe the Iwasaki '149 patent if it were used. Complainant asserts that there is no evidence that its licensees aren't using all of the patents included in the pools to manufacture the CD-R/RWs. Even if true, that fact does not obviate the competitive harm identified by the ALJ — which is that alternative technologies that could be used to manufacture CD-R/RWs are "foreclosed" because licensee manufacturers are forced to take licenses to nonessential patents covering technology that competes with the alternative technology.

B. Certain So-Called "Essential" Patents Are Not Essential

Complainant also argues that the ALJ adopted an incorrect standard for evaluating "essentiality." It contends that the essentiality standard which it advanced (through the testimony of Dr. Rubenstein), and which was rejected by the ALJ, was approved by the DOJ Antitrust Division.

We do not find persuasive complainant's contention that the ALJ assumed, contrary to "uncontested evidence," that sections of the Orange Book labeled "recommendations and clarifications" are optional (complainant's submission at 111). Although complainant relies on the testimony of Dr. Rubenstein on this point, the ALJ considered Dr. Rubenstein's position but rejected it based on the testimony of respondents' expert (McLaughlin), complainant's witness (Mons), and the text of the Orange Book. *See, e.g.*, ID at 188–89, 205; Trans. (McLaughlin) at 1504:10–18, 1507:10–1509:17; Trans. (Mons) at 453:18–454:2; *see also* Trans. (McLaughlin) at 1504:19–1506:6; RX-407C (Orange Book CD-R Standard § 1.3 at PH015684); RX-408C (Orange Book CD-RW Standard § 1.3 at at PH023245).

We also disagree with complainant's characterization of the 6C DVD Business Review Letter as "noting that both 'optional or mandatory features of the standard' would be considered in determining essentiality." Complainant's submission at 106 (citing CX-358 § II.B). The language upon which complainant relies appears in connection with the allocation of royalties, not the determination of essentiality. CX-358 at 6. Complainant's position

that a patent that is necessarily infringed by compliance with an optional portion of the standard is "technically essential" is not supported by the DOJ Business Review Letters.[39]

In the MPEG-LA business review letter, the DOJ stated that "[t]he limitation of the Portfolio [(*i.e.*, the patents in the package)] to technically essential patents, as opposed to merely advantageous ones, helps ensure that the Portfolio patents are not competitive with each other *and that the Portfolio license does not, by bundling in nonessential patents, foreclose the competitive implementation options that the MPEG-2 standard has expressly left open.*" CX-355 at 10 (emphasis added). Later in the same letter,

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[39] According to Dr. Rubenstein, "essential" patents include those that are either (1) "technically essential" or (2) "essential as a practical matter" (also referred to by Dr. Rubenstein as "commercially essential"). In determining whether a patent is "essential as a practical matter," Dr. Rubenstein considers whether alternative technology exists -- but he does not consider the existence of alternative technology in deciding whether a patent is "technically essential." Complainant's submission at 104–05 ("Dr. Rubenstein does not consider whether there are any alternatives to technically essential patents"), 107 (Trans. (Rubenstein) at 2185–86).

The ALJ recognized that a "technically essential" patent is one that is "inevitably infringed by compliance with the specification." *E.g.*, ID at 189. He also recognized, however, that "if the manufacturer practices a methodology that is identified in the Orange Book as an 'alternative' or 'optional' methodology that is *not* covered by any patent in the pool, a manufacturer utilizing such optional technology would be in technical compliance with the Orange Book and would not be an infringer [of any patent in the pool]." ID at 189.

the DOJ explained that "conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from technological alternatives to the second. In this instance, however, the essentiality of the patents — determined by the independent expert — means that there is no technological alternative to any of them and that *the Portfolio license will not require licensees to accept or use any patent that is merely one way of implementing the MPEG-2 standard, to the detriment of competition*." CX-355 at 11 (emphasis added).

As explained in the ID —

> In the . . . 3C DVD Business Review Letter, the patent pools in question were limited to "essential" patents that were defined somewhat more broadly from the MPEG-2 pool as being "necessary (as a practical matter) for compliance with the DVD[-Video or DVD-ROM] Standard Specifications." *See* CX-357 (3C DVD Business Review Letter at p. 3). The DOJ stated that it understood this definition "to encompass patents which are technically essential — *i.e.* inevitably infringed by compliance with the specifications — and those for which existing alternatives are economically unfeasible." *See id.* at 3 n.8.

ID at 143. The DOJ continued with this same approach in the 6C DVD Business Review Letter (CX-358), which is the letter cited by complainant. In

that letter, the DOJ stated that, in the proposed licensing arrangement, a patent is "essential" "if it is *'necessarily infringed,' or* 'there is no realistic alternative' to it, 'in implementing the DVD Standard Specifications.'"[40] CX-358 at 3 (quoting agreement at issue) (emphasis added).

> The 6C DVD Business Review Letter also states that —
>
> [a]fter deducting its licensing-administrator fee, Toshiba will distribute the remaining royalties among the Licensors pursuant to an agreed allocation formula set forth in the Ground Rules for Royalty Allocation. This formula takes into account how often a Licensor's "essential" patents are infringed by either manufacture or sale of licensees' products, the age of the patents, and, in the case of patents "essential" to disc standards, whether

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[40] The DOJ letter goes on to note that the definition of "essential" in the proposed licensing arrangement —

> introduces some uncertainty. By asking the expert to identify not only those patents that are literally essential to compliance with the DVD-ROM and DVD-Video standards, but also those for which there is no "realistic" alternative, the definition introduces a degree of subjectivity into the selection process. Based on your representations, however, it appears that the expert will interpret "realistic" to mean economically feasible.

CX-358 at 10.

> the Licensor's patents relate to optional or mandatory features of the standard.

CX-358 at 6 (footnote omitted). Although the above-quoted statement indicates that a patent relating to "optional" features of the standard may be deemed "essential," it does *not* follow that a patent relating to "optional" features of the standard could be deemed "technically essential." This is because a patent is essential (1) if it is necessarily infringed by compliance with the standard *(i.e.*, technically essential) *or* (2) if there is no realistic alternative to it in implementing the standard *(i.e.*, necessary as a practical matter). Consistent with the concerns expressed by the DOJ in the MPEG-LA Business Review Letter quoted above, although a patent that relates to "optional" features of the standard may be deemed "essential," such a patent must be "necessary as a practical matter" — and cannot be "technically essential."[41]

We disagree with complainant's assertion that the ALJ ignored the "essential as a practical matter" criterion. *See, e.g.*, ID at 142–43, 193. As stated by the ALJ (ID at 143), in approving the necessary as a practical matter standard in the 3C DVD Business Review Letter, the DOJ stated that this definition

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[41] To allow a patent that relates to "optional" features of the standard to be deemed "technically essential" because the patent is necessarily infringed by compliance with the optional features of the standard (even if the patent is not infringed by practice of the mandatory portions of the standard) would foreclose alternative competitive implementation options that the standard has expressly left open.

encompassed patents "for which existing alternatives are economically unfeasible." CX-357 at 3 n.8, 10 (no "economically viable substitutes"); *see also* CX-358 at 3, 10 (no "economically feasible alternatives"). Although respondents' expert (McLaughlin) testified that his essentiality analysis did not use "essentiality as a practical matter,"[42] that does not mean that the ALJ could not rely on McLaughlin's testimony that a particular alternative technology exists, is economically feasible, can be used to practice the Orange Book standard, and is not covered by a patent in applying the "essential as a practical matter" standard. *See, e.g.*, ID at 203–04 (finding that the Farla '692 patent has not been shown to be "essential as a practical matter"); ID at 205–06 (finding that the Iwasaki '149 patent is not essential as a practical matter).

C. The ALJ's Finding of Anticompetitive Effect Is Supported by the Evidence

The ALJ identified specific patents that were identified in complainant's licenses as so-called "essential" patents even though (1) the patent was not "technically essential" to practice the Orange Book, and (2) economically viable, alternative technology existed to that covered by the patent. He concluded that the inclusion of actually nonessential patents among the so-called "essential" patents unreasonably foreclosed competition. He found that alternative technologies that compete with the technology of those patents are unreasonably

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[42] Trans. (McLaughlin) at 1558:17–1559:4.

foreclosed from use by licensee manufacturers because the manufacturers are wedded to the nonessential patents that they are compelled by the pools to accept. ID at 196. Thus, the anticompetitive effect of the tying arrangement *(i.e.,* including actually nonessential patents in the list of so-called "essential" patents and requiring a licensee to take all of the so-called "essential" patents) is foreclosure of competition.

While not stated explicitly in the ID, the injury to competition occurs in the market for the "tied" patent, *viz.,* the technology licensing market for the actually nonessential patent (and substitute technology) that is included in the list of so-called "essential" patents. The foreclosure occurs because the ability of owners of competing technology to license their technology to CD-R/RW manufacturers is impaired by the requirement that the manufacturers license the nonessential patents, which is a disincentive for them to license alternative, substitute technologies for the nonessential patents. FF 177, 179, 454–456.

D. The ALJ Balanced the Pro-Competitive Effects

We do not find persuasive complainant's argument that the ALJ failed to consider the procompetitive effects of its licensing practices and weigh them against the anticompetitive effects. The ALJ considered the procompetitive effects advanced

by complainant at several points in the ID.[43] ID at 192–94, 214–16, 219. He considered and rejected complainant's argument that its licensing practices created a new consumer product (CD-R/RWs) and a new industry. ID at 214–15. He regarded those benefits as flowing from the Orange Book standards. Complainant's argument — that the ALJ's analysis is incorrect because a license is required to produce CD-R/RWs — is misguided because (as complainant concedes in its submission at 131 n.83) all necessary patent rights could be obtained from individual licensors without a pool license. The ALJ considered and rejected complainant's contention that a broad package is convenient to manufacturers; he specifically found that the convenience to manufacturers of a broad package of patents was outweighed by the anticompetitive effect on alternative technologies of packaging nonessential patents with essential patents. ID at 192–94.

For the foregoing reasons, we conclude that the patents asserted in this investigation are unenforceable for patent misuse under the rule of reason.

Thus, we have found the asserted patents unenforceable for patent misuse *per se* and have also found the asserted patents unenforceable for patent

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[43] As noted *supra* in footnote 32, we have adopted those portions of the ALJ's analysis of the royalty rate mechanism under the rule of reason (ID at 213–19) that are relevant to the rule of reason balancing of the procompetitive effects against the anticompetitive effects of including nonessential patents in the list of so-called essential patents.

misuse under the rule of reason. We affirm the ALJ's conclusion that although patent misuse can be purged if the patent holder shows that he has completely abandoned the improper practices that were found to be misuse and that the consequences of the misuse have been fully dissipated, no such showing has been made by complainant in this investigation. ID at 146–47, 220; FF 602.

CERTAIN RECORDABLE COMPACT DISC AND REWRITABLE COMPACT DISCS

337-TA-474

CERTIFICATE OF SERVICE

I, Marilyn R. Abbott, hereby certify that the attached **COMMISSION OPINION**, was served upon parities via first class mail and air mail where necessary on April 8, 2004.

Marilyn R. Abbott; Secretary
U.S. International Trade Commission
500 E Street, SW - Room 112
Washington, DC 20436

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APPENDIX F

CONTAINS CONFIDENTIAL BUSINESS INFORMATION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of

CERTAIN RECORDABLE COMPACT DISCS AND REWRITABLE COMPACT DISCS

Investigation No. 337-TA-4747.7

RECOMMENDED DETERMINATION ON REMEDY AND BONDING

I. Background

On October 24, 2003, the Administrative Law Judge issued the Initial Determination in this

investigation, finding no violation of section 337 of the Tariff Act of 1930, as amended, in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain recordable compact discs or rewritable compact discs by reason of infringement of claims 1, 5, or 6 of U.S. Letters Patent 4,807,209, claim 11 of U.S. Letters Patent 4,962,493, claims 1, 2, or 3 of U.S. Letters Patent 4,972,401, claims 1, 3, or 4 of U.S. Letters Patent 5,023,856, claims 1-5 or 6 of U.S. Letters Patent 4,999,825, or claims 20, 23-33, or 34 of U.S. Letters Patent 5,418,764. The Commission's Rules require that the Administrative Law Judge issue a Recommended Determination containing findings of fact and recommendations concerning: (1) the appropriate remedy in the event that the Commission finds a violation of section 337, and (2) the amount of bond to be posted by respondents during Presidential review of Commission action under section 337(j) of the Tariff Act. 19 C.F.R. §

210.42(a)(1)(ii).

As stated in the Initial Determination, the parties consist of the Commission Investigative Staff of the Office of Unfair Import Investigations ("OM"), and the following:

Complainant

U.S. Philips Corporation of Tarrytown, New York ("Complainant" or "Philips"),

Respondents

Linberg Enterprise Inch of West Orange, New Jersey ("Linberg");

Gigastorage Corporation Taiwan of Hsinchu Industrial Park, Hsinchu, Taiwan;

Gigastorage Corporation USA of Livermore, California ("Gigastorage USA");

Princo Corporation of Hsin-Chu, Taiwan; and

Princo America Corporation of Fremont, California ("Princo America").

II. Remedy

The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. Viscofan, SA. v. United States Intl Trade Comm 'n, 787 F.2d 544, 548 Ted. Cir. 1986),

Philips requests a general exclusion order and a cease and desist order. With respect to the question of bond during the Presidential review period, Philips argues that because it does not manufacture CD-Rs or CD-RWs for commercial sale, its injury is lest royalties, making the appropriate bond amount US$0.06 per CD-R disc or CD-RW disc, which reflects the current standard royalty rate charged

under the Philips-only patent license agreements for CD-Rs and CD-RWs.[1] See, e.g., Philips' Post-Hearing Patent Brief at 49-50; Notice of Submission of Corrected Pages at 2, and Exhibit 4 (dated June 2, 2003).

Respondents argue that even if a violation of section 337 were found, Philips has failed to make an adequate showing for the issuance of either a general exclusion order or a cease and desist order. With respect to the question of bond during the Presidential review period, Respondents argue that "3 percent of entered value is an appropriate amount." See, e.g., Respondents' Post-Hearing Patent Reply Brief at 20-22.

The Commission Investigative Staff argues that in the event that the Commission determines that there is a violation of section 337, a general exclusion order against infringing CD-Rs and CD-RWs would be required to provide an adequate remedy. The Staff supports the entry of cease and desist orders against Gigastorage USA and Princo America. With respect to the question of bond during the Presidential review period, the Staff argues that due to the unavailability of adequate pricing information, any bond to be posted by Respondents should be set at 100% of entered value. OUII Post-Hearing Brief at 50-53; OUII Post-Hearing Reply Brief at 21-24.

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[1] A detailed discussion of Philips' licensing practices is contained in Section IX of the Initial Determination, concerning patent misuse

A. A General Exclusion Order

With respect to exclusion orders, section 337 provides in pertinent part:

> (d) Exclusion of articles from entry
>
> (1) if the Commission determines, as a result of an investigation under this section, that there is a violation of this section, it shall direct that the articles concerned, imported by any person violating the provision of this section, be excluded from entry into the United States, unless, after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry. The Commission shall notify the Secretary of the Treasury of its action under this subsection

directing such exclusion from entry, and upon receipt of such notice, the Secretary shall, through the proper officers, refuse such entry.

(2) The authority of the Commission to order an exclusion from entry of articles shall be limited to persons determined by the Commission to be violating this section unless the Commission determines that—

(A) a general exclusion from entry of articles is necessary to prevent circumvention of an exclusion order limited to products of named persons; or

(B) there is a pattern of violation of this section and it is difficult to identify the source of infringing products.

19 U.S.C. § 1337(d).

It has long been recognized that the Commission usually issues limited exclusion orders, and that a general exclusion order is authorized by statute only if the conditions set forth in section 337(d)(2)(A) or (B) are established. See Certain Airless Spray Pumps, Inv. No. 337-TA-90, USITC Publication 1199, Commission Opinion on the Issues on Review and on Remedy, the Public Interest and Bonding (1981)(A complainant seeking a general exclusion order must prove both (i) "a widespread pattern of unauthorized use of fits] patented invention" and (ii) "certain business conditions from which one might reasonably infer that foreign manufacturers other than the respondents to the investigation may attempt to enter the U.S. market with infringing articles.").

The issuance of a general exclusion order is permitted under only particular circumstances because a general exclusion order has the potential to disrupt legitimate trade to a greater extent than a limited exclusion order. See Certain Erasable Programmable Read-Only Memories, Inv. No. 337-TA-276, Comm'n Op, at 125 (May 1989), affd sub. non Hyundai Elec. Indus. v. U.S. Intl Trade Comm 'n, 899 F.2d 1204, 1209 (Fed. Cir. 1990)("In general, in determining whether to issue a general exclusion order, the Commission balances the complainant's interest in obtaining complete protection from all potential foreign infringers against the inherent potential of a general exclusion order to disrupt legitimate trade.").

Complainants argue there is widespread unauthorized importation of infringing discs into the

United States. It is argued that there are foreign litigations based on the infringement of patents corresponding to the patents-in-suit, and that approximately 30 to 35 percent of the billions of CD-Rs and CD-RWs sold worldwide are the product of unauthorized use of Philips' patents. Philips also argues that there is an established market, well-established marketing and distribution networks in the United States and worldwide, and further that a large number of foreign manufactures have the ability to purchase the necessary equipment and begin producing subStantial numbers of CD-Rs and CD-RWs within a relatively short period of time. Thus, Philips argues, a general exclusion order is required. Philips' Post-Hearing Patent Brief at 49.

Respondents argue that Philips has not established either of the statutory conditions necessary for the issuance of a general exclusion order. With respect to possible circumvention of limited exclusion orders, it is argued that the Princo respondents are well-established companies with sound reputations. Respondents also argue that getting started in the disc manufacturing business is no simple task and could easily take over a year. With respect to the - question of a widespread pattern of section 337 violation, Respondents argue that Philips relies on uncorroborated statements, and evidence of litigation in only Mexico and Argentina. Further, Respondents argue that Philips has made no attempt to show any difficulty in identifying the source of potentially infringing products. Respondents' Post-Hearing Patent Reply Brief at 20-21.

The Commission Investigative Staff argues that the evidence adduced at trial indicates that a general exclusion order against the importation of infringing CD-Rs and CD-RWs is appropriate. The Staff notes that the Commission has relied on evidence as to the practices of non-parties in determining whether to issue a general exclusion order.[2] The Staff argues that the evidence shows that in addition to the manufacturing Princo and Gigastorage respondents, there are other foreign entities that have manufactured and imported CD-R and CD-RW discs into the United States. The Staff points out that Respondents Acme Production Industries, Digital

Storage Technology Co., Ltd., and KingPro Mediatek, Inc., all foreign manufacturers of accused CD-R and/or CD-RAT discs, were found in default by the Administrative Law Judge in Order No. 21, which issued on April 18, 2003. In that same order the Administrative Law Judge found one domestic respondent in default as well. On October 29, 2002,

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[2] In particular, the Commission Investigative Staff cited *Certain Two-Handle Centerset Faucets and Escutcheons, and Components Thereof* Inv. No. 337-TA-422, Commission Opinion on Remedy, the Public Interest, and Bonding at 7 (July 21, 2000), USITC Pub. 3332 (July 2000) (issuing a general exclusion order based in part on evidence of infringement by former respondents and non-respondents in the investigation), and *Certain Rare-Earth Magnets and Magnetic Materials and Articles Containing Same*, inv. No. 337-TA-413, Commission Opinion on Remedy, the Public Interest, and Bonding at 7-8 (Dec. 10, 1999), USITC Pub. 3307 (May 2000) (finding evidence with respect to settled respondents and non-parties relevant to the issue of remedy).

and April 2, 2003, the Administrative Law Judge issued Orders terminating 12 domestic respondents, settling their disputes through consent orders. In the Staffs view, as a result of the activities of the defaulting respondents, the settling respondents, and the participating respondents, Philips can show a widespread pattern of violation of section 337.

Further, the Staff argues, the evidence shows that it is difficult to trace the origin of the imported CD-Rs and CD-RWs. For example, during the hearing (Wieghaus Tr. 288-290), evidence was adduced that CD-Rs and CD-RWs sold on a spindle often come without labeling indicating their origin, and the only method to identify the manufacturer may be from an "IFPI" code stamped on the interior plastic ring of a disc. However, the evidence also showed that the IFPI code is not used by some manufacturers and, in fact, discs have been discovered that have a false WM designation. The Staff believes that it is likely that persons would be able to evade limited exclusion orders against identified entities or persons, and argues that a general exclusion order against infringing CD-Rs and CD-RWs is required to provide an adequate remedy. OUII Post-Hearing Patent Brief at 45-47.

The evidence presented in this investigation demonstrated that the Princo and Gigastorage respondents practice the patents-in-suit, and as highlighted by the Commission Investigative Staff, numerous other companies have defaulted in this investigation and could be subject to exclusion orders. See Order No. 6 (Initial Determination), Commission Notice Not to Review (Nov. 25, 2002); Order No. 17

(Initial Determination), Commission Notice Not to Review (Apr. 24, 2003); Order No. 18 (Initial Determination), Commission Notice Not to Review (Apr. 25, 2003); Order No. 21 (Initial Determination), Commission Notice Not to Review (May 7, 2003). Thus, assuming that a violation of section 337 were to be found by the Commission, the pattern of violation should be deemed widespread. The evidence also shows that evasion of a limited exclusion order likely would be easy due to the unrebutted evidence that discs ate often unmarked, and therefore in enforcing a remedy, the source of imported discs would be difficult to determine.

Although a potential disruption to legitimate commerce cannot be discounted, if the Commission were to determine that a violation of section 337 has occurred, Philips would be entitled to the protection that only a general exclusion order could provide in this instance.

B. Cease and Desist Orders

Generally, the Commission issues a cease and desist order directed toward a domestic respondent when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold so as to undercut the remedy provided by an exclusion order. See Certain Condensers, Parts Thereof and Products containing Same, including Air Conditioners for Automobiles, Inv. No. 337-TA-334, Cowmen Op. at 26-28 (Aug. 27, 1997); Certain Crystalline Cefadroxil Monohydrate, Inv. No. 337-TA-293, Comm'n Op. on Remedy, the Public Interest and Bonding at 37-42, USITC Pub. 2391 (June 1991).

Complainants argue that "a cease and desist order is necessary to provide complete relief because Respondents' infringing discs are held in inventory in the United States, beyond the reach of an exclusion order targeting imports." Philips' Post-Hewing Patent Brief at 49 (citing Certain Microsphere Adhesives, Process for Making Same, and Products Containing Same, including Self-Stick, USITC Inv, No. 337-TA-366, Comm'n Op., 1996 ITC LEXIS 5, at *31 (Jan. 16, 1996)).

Respondents argue that Philips has not provided adequate evidence of commercially significant inventories for each domestic respondent to support the issuance of cease and desist orders, Respondents' Post-Hearing Patent Reply Brief at 21.

The Commission Investigative Staff argues that two of the domestic respondents, Princo America and Gigastorage USA, failed to provide inventory information in response, to relevant Ste interrogatories after indicating that they would do so.[3] Nevertheless, it is argued, the Commission had held that when a party fails to provide inventory data, there is a presumption that commercially significant inventory exists. [4] OUII Post-Hearing

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[3] The Commission Investigative Staff notes that discovery was not taken of the domestic respondent Linberg concerning its inventory. *See* OUII Post-Hearing Patent Brief at 48 n.45.

[4] The Commission Investigative Ste also cited the following information concerning the activities of the domestic respondents:

In 2001, Princo America imported approximately 248 million CD-R discs and approximately 159 million CD-R discs in the

Patent Brief at 47-48 (citing Certain Crystalline Cefadroxil Monohydrate, Inv. No. 337-TA-293, Commission Opinion at 4142 (March 15, 1990), USITC Pub. 2391 (June 1991)).

The Administrative Law Judge finds that it would indeed be reasonable to find that commercially significant inventories of accused products exist in the United States, if not as a legal presumption vis-a-vis Princo America and Gigastorage USA, then

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first half of 2002. Response to Complaint of Princo American at p. 35. In 2001, Princo America sold approximately 168 million CD-R discs in the Untied States and approximately 135 million CD-K discs in the first half of 2002. Response to Complaint of Princo America at p. 35. Thus, for 2001 and the first half of 2002, Princo America imported approximately 104 million more CD-R discs than it sold in the United States. Princo America at p. 35.

In 2001, Gigastorage USA imported approximately 37.5 million CD-R discs and approximately 3.5 million CD-R discs in the first half of 2002. Response to Complaint of Gigastorage USA at p. 30. In 2001, Gigastorage USA sold approximately 15 million CD-R discs in the United States and approximately 116,000 CD-R discs in the first half of 2002. Response to Complaint of Gigastorage USA at p. 30. Thus, for 2001 and the first half of 2002, Gigastorage USA imported approximately 26 million more CD-R discs than it sold in the Untied States. Gigastorage USA Response at p. 30.

In 2001, Linberg imported approximately 21 million CD-R discs and approximately 10 million CD-R discs in the first half of 2002. Response to Complaint of Linberg at p. 31. In 2001, Linberg sold approximately 20 million CD-R discs in the United States and approximately 9 million CD-R discs in the first half of 2002. Response to Complaint of Linberg at p. 31. Thus, for 2001 and the first half of 2002, Linberg imported approximately 2 million more CD-R discs than it sold in the United States. Linberg Response at p. 31.

certainly based upon the discovery provided by all three domestic respondents concerning the volume of discs that they import and sell. Consequently, if the Commission finds a violation of section 337, cease and desist orders should issue directed toward all three domestic respondents, i.e., Princo America, Gigastorage USA and Linberg.

C. Bond

The Administrative Law Judge and the Commission must determine the amount of bond to be required by respondents pursuant to section 337(j)(3) during the 60-day Presidential review period following the issuance of permanent relief, in the event the Commission determines to issue a remedy. The purpose of the bond is to protect the complainant from any injury.

19 C.F.R. § 210.42(a)(1)(ii), § 210.50(a)(3).

When reliable price information is available, the Commission has often set the bond by eliminating the differential between the domestic and the imported, infringing product. See Certain Microsphere Adhesives, Processes for Making Same, and Products Containing Same. Including Self-Stick Repositiona&le Notes, Inv. No. 337-TA-366, Comm'n Op, a 24 (1995). In other cases, the Commission has turned to alternative approaches, especially when the level of a reasonable royalty rate could be ascertained. See, e.g., Certain Integrated Circuit Telecommunication Chips and Products Containing Same, Including Dialing Apparatus, Inv. No. 337-TA-337, Comm'n Op. at 41 (1995). A 100% bond has been

required when no effective alternative existed. See Certain Flash Memory Circuits and Products Containing Same, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 26-27 (July 1997)(100% bond imposed when price comparison was not practical because the parties sold products at different levels of commerce, and the proposed royalty rate appeared to be de minimis and without adequate support in the record).

In this instance, reliable and relevant price information may not be available. However, the Administrative Law Judge does not find it necessary to resort to a 100% bond because rather than trying to bridge a price differential between licensed and unlicensed products, a reasonable royalty is the more relevant standard to use given the nature of the business activities carried out by Philips and Respondents, and which are at issue in this investigation. A reasonable royalty rate, imposed in the form of a bond, would protect Philips from harm during the Presidential review period in the event that the Commission determined that there is a violation of section 337.

If the Commission determines that there is a violation of section 337, the Commission must reverse the finding in the Initial Determination that there has been patent misuse. In doing so, it is not clear how the Commission could reconcile such a reversal with the determination of a "reasonable royalty," inasmuch as Philips opposed the principle of a reasonable rate in its post-hearing briefs. In any event, if the Commission were to find Philips' licensing practices to be lawful and also sought to

determine a reasonable royalty, it likely would be appropriate for the Commission to look at Philips' current royalty rate to determine a reasonable rate that would protect Philips from harm.

Philips points out that a low royalty rate, such as the 3% requested by Respondents, does not reflect a rate charged to companies such as Respondents, which are neither cross-licensees nor companies that have agreed to Philips' Compliance Reward Program. Rather, the rate that would be applied to Respondents would be the rate that Philips characterizes as the entreat standard royalty rate charged under the Philips-only patent license agreements for CD-R and CD-RW. Consequently, in the event that the Commission finds a violation of section 337, the bond posted by Respondents during the Presidential review period should be US$0.06 per CD-R disc or CD-RW disc.

III. Conclusions

In accordance with the discussion of the issues contained herein above, it is the RECOMMENDED DETERMINATION ("RD") of the Administrative Law Judge that in the event the Commission determines that Respondents have committed a violation of section 337, the Commission should issue a general exclusion order, and cease and desist orders directed toward Princo America, Gigastorage USA and Linberg. Furthermore, Respondents should be required to post a bond of $0.06 per CD-R or CD-RW disc during the Presidential review period.

The Secretary shall serve a confidential version of this RD upon counsel who are signatories

to the Protective Order issued by the Administrative Law Judge in this investigation (Order No. 1), and the Commission investigative attorney. To expedite service of the public version, counsel for each party are hereby ORDERED to serve on the Administrative Law Judge by no later than December 15, 2003, a copy of this RD with those sections considered by the party to be confidential bracketed in red.

Sidney Harris

Administrative Law Judge

Issued; December 8, 2003

APPENDIX G

United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

Before MICHEL, Chief Judge, NEWMAN, MAYER, LOURIE, RADER, BRYSON, GAJARSA, LINN, DYK, PROST, and MOORE, Circuit Judges.

PER CURIAM.

ORDER

Intervenor U.S. Philips Corporation filed a petition for rehearing en banc, Appellants Princo Corporation and Princo America Corporation filed a petition for rehearing en banc, and Appellee International Trade Commission filed a petition for rehearing and for rehearing en banc. Each petition for rehearing en banc was presumed to request relief that can be granted by the panel that heard the appeal, and action on the petitions for rehearing en banc was deferred until the panel had an opportunity to grant the relief requested. The panel requested responses to U.S. Philips's petition from Appellants Princo Corporation and Princo America Corporation, to Princo's petition from Appellee International Trade Commission and from Intervenor U.S. Philips Corporation, and to the International Trade Commission's petition from Appellants Princo Corporation and Princo America Corporation; each of the requested responses was filed. The court granted the New York Intellectual Property Law Association's motion for leave to file a brief as amicus curiae supporting U.S. Philips's petition and opposing Princo's petition, and Appellants Princo Corporation and Princo America Corporation filed a response to the amicus curiae brief.

The petitions for rehearing were considered by the panel that heard the appeal. Thereafter, the petitions for rehearing en banc, the responses, the amicus curiae brief, and the response to the amicus curiae brief were referred to the circuit judges authorized to request a poll on whether to rehear the appeal en banc. A poll was requested and taken, and

the court has decided that the appeal warrants en banc consideration.

Upon consideration thereof,

IT IS ORDERED THAT:

(1) The petition of Intervenor U.S. Philips Corporation for rehearing en banc is granted.

(2) The petition of Appellee International Trade Commission for rehearing en banc is granted.

(3) The petition of Appellants Princo Corporation and Princo America Corporation for rehearing en banc is denied.

(4) The court's April 20, 2009, opinion is vacated, and the appeal is reinstated.

(5) The parties are requested to file new briefs addressing primarily those issues originally decided in Section II of the court's April 20, 2009 opinion.

This appeal will be heard en banc on the basis of the originally filed briefs, additional briefing ordered herein addressing the issues set forth above, and oral argument. An original and thirty copies of all originally-filed and new en banc briefs shall be filed, and two copies of each en banc brief shall be served on opposing counsel. The Intervenor shall file its brief within forty-five (45) days from the date of filing of this order. The responses of the Appellants

and Appellees are due within thirty (30) days from the date of service of the Intervenor's brief. The Intervenor's reply, if any, is due within ten (10) days from the date of service of the responses. Briefs shall adhere to the type-volume limitations set forth in Federal Rule of Appellate Procedure 32 and Federal Circuit Rule 32.

Briefs of amici curiae will be entertained, and any such amicus briefs may be filed without leave of court but must otherwise comply with Federal Rule of Appellate Procedure 29 and Federal Circuit Rule 29.

Oral argument will be held at a time and date to be announced later.

October 13, 2009 FOR THE COURT

/s/ Jan Horbaly

Date

Jan Horbaly

Clerk

cc: A. Douglas Melamed, Esq.

Eric L. Wesenberg, Esq.
James M. Lyons, Esq.
Charles A. Weiss, Esq.

APPENDIX G

United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

Appeal from the United States International Trade Commission in Investigation No. 337-TA-474.

Before MICHEL, Chief Judge, NEWMAN, MAYER, LOURIE, RADER, BRYSON, GAJARSA, LINN, DYK, PROST, and MOORE, Circuit Judges.

PER CURIAM.

ORDER

Intervenor U.S. Philips Corporation filed a petition for rehearing en banc, Appellants Princo Corporation and Princo America Corporation filed a petition for rehearing en banc, and Appellee International Trade Commission filed a petition for rehearing and for rehearing en banc. Each petition for rehearing en banc was presumed to request relief that can be granted by the panel that heard the appeal, and action on the petitions for rehearing en banc was deferred until the panel had an opportunity to grant the relief requested. The panel requested responses to U.S. Philips's petition from Appellants Princo Corporation and Princo America Corporation, to Princo's petition from Appellee International Trade Commission and from Intervenor U.S. Philips Corporation, and to the International Trade Commission's petition from Appellants Princo Corporation and Princo America Corporation; each of the requested responses was filed. The court granted the New York Intellectual Property Law Association's motion for leave to file a brief as amicus curiae supporting U.S. Philips's petition and opposing Princo's petition, and Appellants Princo Corporation and Princo America Corporation filed a response to the amicus curiae brief.

The petitions for rehearing were considered by the panel that heard the appeal. Thereafter, the petitions for rehearing en banc, the responses, the amicus curiae brief, and the response to the amicus curiae brief were referred to the circuit judges authorized to request a poll on whether to rehear the appeal en banc. A poll was requested and taken, and

the court has decided that the appeal warrants en banc consideration.

Upon consideration thereof,

IT IS ORDERED THAT:

(1) The petition of Intervenor U.S. Philips Corporation for rehearing en banc is granted.

(2) The petition of Appellee International Trade Commission for rehearing en banc is granted.

(3) The petition of Appellants Princo Corporation and Princo America Corporation for rehearing en banc is denied.

(4) The court's April 20, 2009, opinion is vacated, and the appeal is reinstated.

(5) The parties are requested to file new briefs addressing primarily those issues originally decided in Section II of the court's April 20, 2009 opinion.

This appeal will be heard en banc on the basis of the originally filed briefs, additional briefing ordered herein addressing the issues set forth above, and oral argument. An original and thirty copies of all originally-filed and new en banc briefs shall be filed, and two copies of each en banc brief shall be served on opposing counsel. The Intervenor shall file its brief within forty-five (45) days from the date of filing of this order. The responses of the Appellants and Appellees are due within thirty (30) days from the date of service of the Intervenor's brief. The Intervenor's reply, if any, is due within ten (10) days from the date of service of the responses. Briefs shall adhere to the type-volume limitations set forth in Federal Rule of Appellate Procedure 32 and Federal Circuit Rule 32.

Briefs of amici curiae will be entertained, and any such amicus briefs may be filed without leave of court but must otherwise comply with Federal Rule of Appellate Procedure 29 and Federal Circuit Rule 29.

Oral argument will be held at a time and date to be announced later.

October 13, 2009 FOR THE COURT

/s/ Jan Horbaly

Date

Jan Horbaly

Clerk

cc: A. Douglas Melamed, Esq.

Eric L. Wesenberg, Esq.
James M. Lyons, Esq.
Charles A. Weiss, Esq.

APPENDIX H

[Page 423]

(1) UNITED STATES OF AMERICA

(2) BEFORE THE

(3) INTERNATIONAL TRADE COMMISSION

(4) INVESTIGATION NUMBER

(5) 337-TA-474

(6) IN THE MATTER OF:

(7) CERTAIN RECORDABLE COMPACT DISCS

(8) AND REWRITABLE DISCS

(9)

(10)

(11)

(12) HEARING, Volume 2

(13)

(14) Wednesday, June 11, 2003

(15) Courtroom B, Room 111

(16) U.S. International Trade

(17) Commission

(18) 500 E Street SW

(19) Washington, DC

(20)

(21)

(22) The hearing commenced, pursuant to notice of the Judge, at

(23) 9:14 a.m., before the Honorable Sidney Harris

(24) Administrative Law Judge for the United States

(25) International Trade Commission

* * * *

[Page 426]

(11) MS. PFEIFFER: good morning, your Honor.

(12) Complainants will recall Hans Mons.

(13) Whereupon,

(14) HANS MONS

(15) resumed the stand and, having been previously duly sworn,

(16) Was examined and testified furth as follows:

(17) JUDGE HARRIS: Mr. Mons, you've already been

sworn, so please be seated.

THE WITNESS: Okay. Thank you.

* * * *

[Page 463]

CROSS-EXAMINATION

BY MR. SNOTHERLY:

Q Good morning, Mr. Mons. Did you know that at the

[Page 464]

time Philips selected Sony to be a partner in developing

the write-once technology, if Sony had any block patents to

the write-once technology?

A I don't know of any.

Q Did you or your staff do any research as to the

patents that Sony had in the field of write-once technology

prior to their being a partner?

A No, we did not.

Q Yes, we heard you testify about Philips deciding

to use a groove for the write-once technology, to use a

wobble and also to use Mr. Raaijmakers's ATIP instead of

Mr. Lagadec's system. At that point in time had Sony

contributed any technology to the write-once technology

System?

A Sony did have their own disc technology at that

time. And of course, the, the CD-RW was a continuation of

normal CD audio and CD-ROM. So all Sony contributions to

CD audio and CD-ROM were in there already.

Q Did Sony contribute anything in addition to what

they had already contributed to the CD audio standard?

A I think the main thing is what I just mentioned;

they had their own write-once disc technology.

Q Can you point to any specific component to the

system that was eventually turned into the Blue Book - can

you point to any component that Sony specifically

[Page 465]

developed?

A I don't remember any specific thing; however,

they contributed to everything, because we rediscussed all

details with them always.

Q I'm sorry, I didn't catch that last part.

A Sorry. If you're asking whether they contributed

something like ATIP, I don't recall any; however, they

contributed to many details in specification, and

especially if you look at recording parameters, then they

Had big contributions there.

Q Isn't it true that at least a part of the reason

That Sony was chosen was because an industry standard which

They backed would be more likely to be adopted by the

Industry?

A What's the question? Would be more likely to be

adopted if Sony was a partner or what?

Q Yes. Wouldn't it be more likely - let me strike

That.

Isn't it true that at least part of the reason

That Sony was selected as a partner for the write-once

technology that a standard, like the Blue Book, would be

more likely to be adopted and embraced by the industry if

Sony backed it?

A The only reason I know of is that we had been

working already for quite a number of years with Sony on

[Page 466]

the CD type of discs and that the technical cooperation

with Sony worked very well, and for me, that was the main

reason - that was the reason, I have to say, that we

partnered with Sony on the CD write-once discs.

Q So their influence and stature in the industry

Had no effect on your decision to partner with them?

A Correct.

Q You would have been just as happy to partner with

a company that had 100 employees that had similar

technology and similar engineers as Sony?

A If those 100 employees were all very skilled

engineers and they were masters in the art, so to say, like

the Sony engineers were, yes, why not?

JUDGE HARRIS: But you're looking at - you're

answering the questions on the basis of your personal

views?

THE WITNESS: Yes, of course.

JUDGE HARRIS: And you don't know, as you

testified earlier, about what Philips's top management,

what their reasons were?

THE WITNESS: Correct.

BY MR. SNOTHERLY:

Q I just want to ask you a few questions about the drafting of the Blue Book. It wasn't as if different people wrote different sections of the Blue Book and then

[Page 467]

you compiled it? That's incorrect?

A Different people wrote different parts. I compiled it, made one document out of it.

Q Did you draft any sections yourself?

A Yes, I think so.

Q Could you describe the process in a little more detail?

A How we did that always is that we made a proposal to be discussed in a meeting with Sony, and there are examples of that you can find in the meeting minutes, that we had a proposal and that went to Sony. We discussed the

details, made together with Sony corrections where needed,

And after that, that was it.

Q Do you know if anyone at Sony drafted any of the

sections of the Blue Book?

A As far as I remember, nobody at Sony did.

MR. SNOTHERLY: No further questions.

THE WITNESS: Okay.

JUDGE HARRIS: Ms. Pfeiffer?

MS. PFEIFFER: Your Honor, if I may.

REDIRECT EXAMINATION

BY MS. PFEIFFER:

Q Mr. Mons, do you know why Sony didn't draft any

sections of the Blue Book?

A For the same reason as they did not draft any

[Page 468]

section of the Red Book or the Yellow Book and later the

Orange Books.

Q What was that reason?

A Because English is for them far more a foreign

language than it is for us Dutch people. It's that simple

reason.

Q Mr. Mons, when your top management gave the green

light to the CD-PROM project, do you know who made the

decision to go talk to Sony about partnering?

A I'm not absolutely sure. The only thing I know

is that I discussed this with my boss, Jack Freeland, and

with the business group who was funding the CD-PROM

project, and that the only thing I know is that they told

me please go ahead.

Q So as far as you know, who made the decision to

go talk to Sony?

A As far as I know, my boss, Jack Freeland,

together with the business group SPG who was funding the

project.

Q And do you know why they decided that it was okay

To go and talk to Sony about partnering on CD write-once?

A What they told me was about the reason was to

have technical — a good technical partner.

MS. PFEIFFER: I have no further questions, your

Honor.

APPENDIX I

[Page 1294]

(1) UNITED STATES OF AMERICA

(2) BEFORE THE

(3) INTERNATIONAL TRADE COMMISSION

(4) INVESTIGATION NUMBER

(5) 337-TA-474

(6) IN THE MATTER OF:

(7) CERTAIN RECORDABLE COMPACT DISCS

(8) AND REWRITABLE DISCS

(9)

(10)

(11)

(12) HEARING, Volume 6

(13)

Wednesday, June 11, 2003

Courtroom B, Room 111

U.S. International Trade

Commission

500 E Street SW

Washington, DC

The hearing commenced, pursuant to notice of the Judge, at

9:14 a.m., before the Honorable Sidney Harris

Administrative Law Judge for the United States

International Trade Commission

* * * *

[Page 1407]

MR. GREEN: Your Honor, at this time I would like

to offer Mr. Smith as an expert in IP licensing practices

In the field of information handling technology.

JUDGE HARRIS: Any objection?

MR. BEENEY: No, your Honor.

MR. SNOTHERLY: No objection, your Honor.

JUDGE HARRIS: All right. Mr. Smith, I am pleased to accept you as an expert for the purposes of IP licensing and information data storage.

THE WITNESS: Thank you very much, your Honor.

BY MR. GREEN:

Q Mr. Smith, earlier, I was asking you about materials that you reviewed and the project you were given for this case, and can you tell me what conclusions you reached based on your analysis regarding the licensing practices related to this case?

A My general conclusion is that the licenses, certainly those that are being offered today, are in many

respects overbearing, burdensome, and unreasonable.

Q Based on your experience, how much is a patent

Worth?

A Well, unfortunately, a patent has no inherent

value, though we would like to think so. People say beauty

Is in the eye of the beholder, and I think that's certainly

[Page 1408]

true in the case of patents. A patent, even though it

covers some wonderful technology, is not worth anything

unless someone wants to use it. And then it is worth what

It can bring in the way of royalties based on the apparatus

within which it's being used.

Q So how do you actually determine - to the extent

you can determine, what do you base the value of a patent

On?

A You base it on a negotiation between a licensor

and a licensee. That negotiation should conclude in an

agreement which is good for both sides. A patent license

Is not good for the licensor if it doesn't produce income.

It's not good for the licensee if the licensee cannot

operate under it and still make a profit. He can't stay in

business without that.

Q Does the value of a patent have anything to do

With the market value of the products it covers ?

A Surely, it has to do with the market value of the

product and the parts of the product that are covered by

the patent.

Q Does the value of the patent have anything to do

with the research and development costs that were required

To result in the patent?

A Well, certainly a licensor needs to recover

research and development costs, to the extent he can,

[Page 1409]

through patent licensing, but unfortunately, I don't

believe that one can make a direct relationship between the

cost of research and development that goes into innovation

and what one can expect. For example, during my career

with IBM, we had an absolutely terrific research and development program that led to a photo composer that was best in class, but nobody bought it. So we never recovered anything from that research and development.

Q So you never got any licensing revenue out of those patents?

A Not to speak of.

Q How can you tell if a royalty is reasonable?

A Well, a royalty is reasonable if it, as I said before, if it produces income for the licensor and still allows the licensee to operate at a profit so that he can continue to manufacture, use, lease, or sell products that are covered.

Q What, in your experience, is a normal royalty

rate for licensing a single patent?

A In my experience in the information handling

systems area, license rates of 1 percent or less are normal

for an individual patent.

Q So is it your opinion that 1 percent or less per

patent reflects a fair value for the patent?

A I believe it does, yes.

[Page 1410]

Q What about when someone wants to license multiple

patents? How can you tell the reasonable royalty for a set

of multiple patents?

A Well, if a patent is worth, for example, 1

percent, two patents should be worth 2 percent, and three

patents should be worth 3 percent. But there comes a point

in time when you can't keep piling percentages one on top

of another and still expect a licensee to be able to stay

in business. Our experience showed, and the experience of

others with whom I'm familiar in the industry shows that

there is a practical limit, and that limit is in the

neighborhood of 5 percent. That's a very high royalty. I

don't believe that IBM ever achieved royalties of more than

about 3 percent.

Q This concept of 1 percent per patent with,

perhaps, a cap at 5 percent, is that what IBM's actual

practice was?

A That became our practice, yes, and insofar as I'm

aware is still our practice – their practice, I should say

now.

Q Can you generally describe what IBM's licensing

policy was when you were in charge?

A My policy was, as I said, an open licensing

policy. We offered licenses to all responsible applicants

on reasonable and nondiscriminatory terms and conditions.

APPENDIX J

(1)

(2)

(3) In the matter of

(4)

(5) CERTAIN RECORDABLE COMPACT DISCS AND REWRITEABLE DISCS

(6)

(7)

(8)

(9)

(10) DEPOSITION UPON ORAL EXAMINATION

(11) OF

(12) DR JACQUES HEEMSKERK

(13) Voume I Pages 1 to 237

(14)

(15)

(16)

(17) On Wednesday, March 26, 2003 Commencing at

9:20 am

(18)

(19)

(20) Taken at: Hilton Amsterdam

(21) Apollolaan 138 1077 BG Amsterdam

(22) The Netherlands

(23)

(24)

(25) Reported by: Thelma Harries, MBIVR, ACR

[Page 174]

(1) differently, so it's not my understanding.

(2) *Q. How would you have phrased it?*

(3) A. I would phrase it so that Philips

(4) decided, together with Ricoh and IBM, to develop

(5) a CD rewriteable format and, when at some point in

(6) time proposed or informed Sony that we were

(7) cooperating on such a possibility, a CD

(8) rewriteable, then Sony said, "We want to join and

we have technology to bring in." But, in reality, they were more observers than real active developers of this format. So they were taking part, but not in the way I hoped.

Q. Did Sony have any concerns about rewriteable technology?

MS PFEIFFER: Objection to form.

THE WITNESS: Sony had no concerns about rewriteable technology, but Sony, at that point in time, had already many projects at hand, and this was another project where they just did not have the resources to put in sufficiently, so their company decision was to put more effort on MD at that time. So they wanted to participate but they had a rather small crew available.

APPENDIX K

History of CD-R / CD-RW

No Public Version Available, see Sealed Portions of Appendix App. K.

APPENDIX L

CONTAINS CONFIDENTIAL BUSINESS INFORMATION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	
CERTAIN RECORDABLE COMPACT DISCS AND REWRITABLE COMPACT DISCS	**Investigation No. 337-TA-474**

INITIAL DETERMINATION

Administrative Law Judge Sidney Harris

Pursuant to the Notice of Investigation, 67 Fed. Reg. 48948 (2002), this is the Administrative Law Judge's Initial Determination in the Matter of Certain Recordable Compact Discs and Rewritabie Compact Discs Containing Same, United States International Trade Commission Investigation No. 337-TA-474. 19 C.F.R. § 210.42(a).

The Administrative Law Judge hereby determines that no violation of section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States

after importation of certain recordable compact discs or rewritable compact discs by reason of infringement of claims 1, 5, or 6 of U.S. Letters Patent 4,807,209, claim 11 of U.S. Letters Patent 4,962,493, claims 1, 2, or 3 of U.S. Letters Patent 4,972,401, claims 1, 3, or 4 of U.S. Letters Patent 5,023,856, claims 1-5 or 6 of U.S. Letters Patent 4,999,825, or claims 20, 23-33, or 34 of U.S. Letters Patent 5,418,764.

percentage has dropped to about 30-35 percent. Beune Tr. 2385:1-7. This drop evinces a concerted effort on the part of Philips and its licensor-partners to sign up manufacturers to their patent pools. This effort coincided with the period during which manufacturers of CD-R/RW discs were exiting the worldwide market. Prices have continued their inevitable pattern of falling despite the success of Philips and its licensor-partners in signing up over 70 percent of the world's supply of CD-R discs under the pool (*See* RX-1903C (listing current CD-R licenses) and CX-330C (showing percent market shares for CD-R manufacturers)).

The foregoing evidence of the relatively minor impact of Philips and its fellow licensors in the worldwide product market for CD-R/RW discs and on disc prices does not conclusively demonstrate that they possess market power in that market.

b. The Licensing Market for Essential U.S. CD-R/RW Patents

In the United States market for licensing essential U.S. patents for the manufacture and sale of CD-R/RW discs in compliance with Orange Book standards, the situation is quite different. Philips, Sony, Taiyo Yuden and Ricoh are horizontal competitors in the patent licensing market. As Philips has stated in its initial pleadings and as economics experts for both Complainant and Respondents confirmed, no one can manufacture or sell CD-R or CD-RW discs legally in the United

States without taking a license to the Philips patents. *See* McCarthy Tr. at 2038:3-3039:11; 2039:25-2040:15; Bratic Tr. 1705:25-1706:11; Complaint ¶¶ 2.4 and 2.5. All CD-Rs and CD-RWs sold in the marketplace must comply with Orange Book standards. *See* Lang Tr. 234:19-25. Licenses to at least some of the Philips patents are essential to the manufacture of CD-R/RWs that are in technical and practical compliance with the Orange Book.

[Page 175]

property licensing practices in the field of information handling technology, such percentages are "outrageous" compared to industry norms, and would not allow a CD-R licensee to stay in business. Smith Tr. 1417:7-15, 1419:12-24. Nonetheless, Philips and its licensor-partners have signed up more than 100 manufacturers to the patent pools and approximately 60-70 remain signatories today. Beune Tr. 2341:9-22. [166] Further, if Philips is successful in this Section 337 investigation, it will win either a general or a limited exclusion order as well as cease-and-desist orders against Respondents, which by their nature restrict output that is imported into the United States market.

Thus, the Philips CD-R and CD-RW patent pools constitute horizontal agreements among competitors

---

[166] It is to be noted, however, as explained later herein, that many of these manufacturers pay lowered royalties or no royalties because they receive special considerations of one kind or another that have nothing to do with the standard CD-R/RW patent license agreements. *See* p. 180-182, *infra*.

to control the royalty rate for U.S. patents that are essential for the manufacture and sale of CD-R/RW discs in the United States market, agreements that indisputably afford them the market power of an absolute monopoly.

3. *Per Se* Misuse

In characterizing conduct under the *per se* rule, "our inquiry must focus on whether the effect and, here because it tends to show effect, the purpose of the practice [is] to threaten the proper operation of our predominantly free-market economy – that is, whether the practice facially appears to be one that would always or almost always tend to restrict competition and decrease output . . . or instead [is] one designed to increase economic efficiency and render

[Page 200]

> because there are some problems with the analog approach in his opinion. And so he opts for a digital approach . . . .
>
> * * *
>
> Furthermore, there is a real difficulty with actually analyzing this information in a player or reading it out and trying to decode it, because there's only one area in this code where you have to make sure that you understand that this transition is now twice as long. And so the measurement of this is prone to errors, and it is very difficult to carry

> out a decoding of this particular approach.
>
> * * *
>
> Lagadec has a broad spectrum. Rijnsburger has a broad spectrum. They do not look like frequency-modulated signals. They don't act like frequency-modulated signals and they don't produce the results of a frequency-modulated signal. As a result, Philips and Sony dismissed the Lagadec approach because this is a very difficult problem to solve and Lagadec just did not provide a scheme that would work and was reliable and could be used for a variety of different purposes as is required under these patents.

Hesselink Tr. 2580:16-21, 2581:7-14, 2584:25-2585:5.

It is clear from an examination of the sections of the Orange Book that Dr. Rubenstein cited in concluding that Lagadec was "technically essential" that the Orange Book relies upon Philips' ATIP) technology, not Lagadec's digital technology. *See* CX-563C (July 3, 2001 Rubenstein Status Report on the Study of Sony's Patent Submissions for CD-R at PH065753); RX-407C (Orange Book CD-R Standard § IV). Inasmuch as there is no evidence in the record to show that the claims of Lagadec are any broader than what the patent discloses or that those claims somehow cover the ATIP technology of the Orange

Book as well as the digital methodology that Lagadec discloses, [167] it follows that Dr. Rubenstein's characterization of Lagadec as "technically essential" was in error.

[Page 201]

Lagadec constitutes, at best, a substitute technology for the ATIP standard, and at worst, an extraneous, non-working add-on to the patent pool. Either way, Lagadec is "technically non-essential" to the patent pool and has not been shown to be "essential as a practical matter." Accordingly, it represents alternative technology and its inclusion in the pool unreasonably forecloses competition.

b. The Philips Farla '692 Patent

Both Respondents and the Staff contend, without contravention by Complainant, that the Philips Farla '692 patent is non-essential and should not be included in the Philips CD-R and CD-RW patent pools. *See* RPHB at 13-15; SPHB at 24-27. The claims of the Farla '692 patent are directed to a particular method of carrying out a strategy for

---

[167] As shown above, the Hesselink testimony offered by Complainant is not just that the Lagadec '565 patent disclosure is too narrow to anticipate the '825 patent; it is that the Lagadec '565 patent constitutes *completely different technology* that does not work well according to the Orange Book standards. This testimony renders Lagadec extraneous to the Orange Book, and necessitates a finding that it is non-essential to the pool. Its inclusion in the pool appears to be an attempt to forestall digital approaches to achieving what the Philips analog technology has achieved.

writing data, otherwise known as a "write strategy," onto a blank recordable disc. In particular, the patent relates to whether additional write pulses or additional information relating to the write pulses is necessary for the write strategy. McLaughlin Tr. 1525:18-1526:6; RX-1472. The methodology and claims of the patent are directed to optimizing the writing accuracy of an optical recorder when faced with the properties of a particular disc. *See* RX-1472 ('692 patent, col. 1:67-2:3).

On May 21, 2001, Dr. Rubenstein sent Philips a status report in which he stated that the Orange Book CD-R standard did not appear to require the Farla '692 patent and therefore was not "technically essential." RX-1792 (May 21, 2001 Rubenstein Status Report re Study of Philips' Patent Submissions re CD-R at RK005216). Dr. Rubenstein analyzed the following

APPENDIX M

The Hague District Court

Session held on 27 March 2001

Case number 99/1259

NOTICE FOR THE RECORD CONTAINING WRITTEN STATEMENT OF VIEWS

in the matter of:

the public limited company KONINKLIJKE PHILIPS ELECTRONICS N.V., which has its principal place of business in

Eindhoven

Represented by: W. Tackema

E.H. Pijnhacker Hordijk

F.W.E. Eijsvogels

P.M.A.L. Plompen

plaintiff in principal action

defendant in cross action

versus

the legal entity incorporated under foreign law FORNET INTERNATIONAL PTE, LTD., which has its principal place of business in Singapore, Singapore

represented by: D. Rijpma

I.G.F. Cath

defendant in principal action

plaintiff in cross action

[Page 4]

It is important to stress that the pure CD-R patents do *not* embody the result of joint research and development ("R&D") of Philips, Sony and Taiyo Yuden. What Philips and Sony *have* developed together are the standards for CD-WO and CD-MO. These standards are laid down in what is known as the "Orange Book", to which reference has already

been made in the documents relating to this case. Relevant passages from this "Orange Book" are now brought into the proceedings as exhibit 2. These standards are necessary to guarantee that the relevant products can be recorded on CD-R recorders and can be played back on CD-Audio, CD-ROM and CD-I playback equipment.

There is, therefore, no question of any joint Philips and Sony patents, nor of any between the former and Taiyo Yuden as far as CD-R is concerned.